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TEXAS
STATE JOURNAL OF MEDICINE

Vol. 48 Number 5 Austin, Texas, May, 1952

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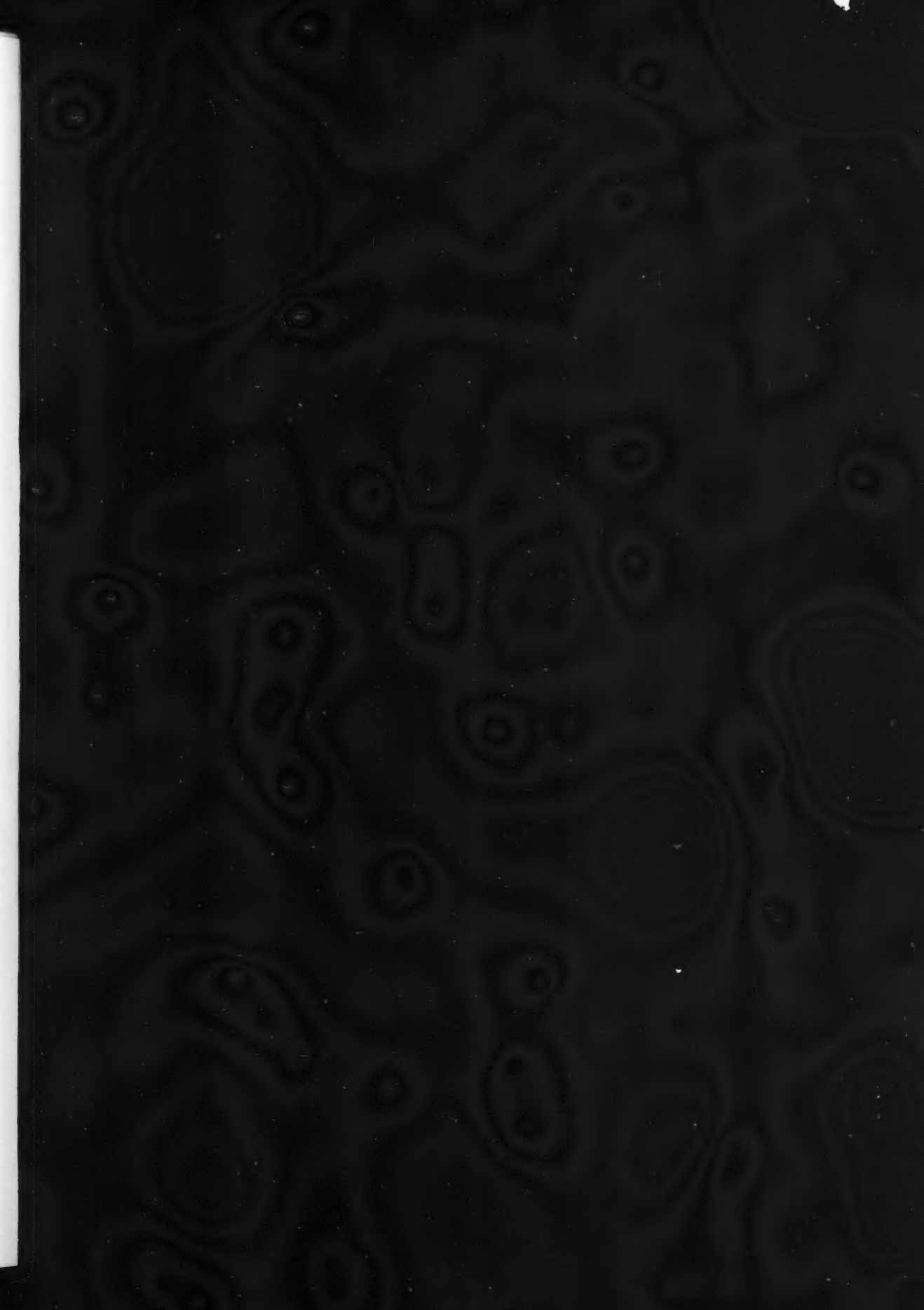


President's Page

THE COMING YEAR

The year on which we are embarked together marks the end of a century of organized medicine in Texas. In my judgment it will prove more than a calendar milestone, and I face the duties of the office with which you have honored me with sincere humility.

I believe that this will be a year of stern trials not only for our profession, but for Americans everywhere who are dedicated to defend the system of free enterprise which has made our nation great. I am deeply grateful for the opportunity of working with the caliber of men who are taking the lead throughout Texas in defense of private medical practice. I am also appreciative of the leadership which has gone before and because of which we are able to present a still unbroken front to every attack directed against us.

Our objectives for the year are readily recognized.

We must determine first of all to discharge our duties as citizens as well as physicians. We must do so in the conduct of our professional affairs, in our community organizations, in our interest in legislative matters, and at the ballot box.

We must discharge our responsibilities to our profession, for it is a trust that other medical men have given us and one that we shall hand on to yet another generation. We must discharge these responsibilities in determining to support our county medical societies and our state and national organizations. It must be clear to us all that we will survive only through united and cooperative effort and that the only vehicle which can provide that effort is our own medical organizations.

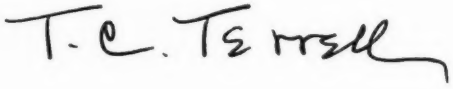
We must determine against the development of any rift between general practitioner and specialist, for it is axiomatic that Custer's

division of his own forces at Little Big Horn was the instrument which destroyed them all.

We must recognize that there will be no cessation of activity from the proponents of federal medicine. The attack from this quarter will be continued attempts to undermine the profession of medicine on a piecemeal basis. We must be ready with our friends to make our views known at the proper time to our elected officials.

We must determine to adapt to our particular community needs the excellent public relations programs available to our county medical societies from the American Medical Association and our own State Association as well. Establishment of a grievance committee program and emergency telephone service warrants the close examination of every medical society in the state.

We must, in short, determine to work together in this year in every sense of the word—intelligently, tirelessly. My own desire is to make any contribution that I can, to serve in any way that I can, in order that together we can bring these things about.



TRUMAN C. TERRELL, M. D.

Eighty-Seventh President, Texas Medical Association
FORT WORTH, TEXAS

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

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Volume 48 **Austin, Texas, May, 1952** **Number 5**

DR. TRUMAN C. TERRELL

Dr. Truman Conner Terrell, Fort Worth, was installed at the concluding meeting of the annual session in Dallas, May 7, to serve as eighty-seventh president of the Texas Medical Association.

Dr. Terrell long has been associated with the medical profession and more specifically with the Texas Medical Association. His father was a physician; one brother, the late C. O. Terrell, was a physician; and another brother, S. D. Terrell, is a dentist. Dr. Terrell himself, upon first entering medical practice, joined the Texas Medical Association and has been active in its program ever since. He was chairman of the Section on Clinical Pathology in 1932, 1936, and 1939. He served the Thirteenth District as Councilor from 1938 until 1942, when he became a Trustee of the Association. He continued as a member of the Board of Trustees and more recently as its chairman until named President-Elect in 1951. He now represents the Texas Medical Association in the House of Delegates of the American Medical Association.

Dr. Terrell's wife, the former Miss Anna Helen Jones of Iola, Kan., is prominent in the Woman's Auxiliary to the Texas Medical Association, at present being chairman of the Committee on Public Relations. Their daughter, Miss Catherine Terrell, works with her father in his business enterprises.

Born February 9, 1890, in Ranger to Charles Edwin and Emma (Riddel) Terrell, Dr. Terrell received his preliminary education in the Ranger schools. He also attended the University of Texas School of Medicine, Galveston, 1907 to 1910, and was graduated in medicine from the University of Pennsylvania, Philadelphia, in 1911. His internship was served in the Kansas City General Hospital and in the Philadelphia Contagious Hospital. He was resident pathologist at the Philadelphia General Hospital and pathologist at the Central Indiana Hospital for Insane, Indianapolis. He has taken postgraduate work at Harvard Medical School, Boston, and was certified in clinical pathology and pathological anatomy in 1937.

Dr. Terrell entered private practice in Ran-

ger in 1913 as a general practitioner, and in 1914 he relocated in Fort Worth as a pathologist. During the next several years he taught clinical pathology and bacteriology in the old Fort Worth School of Medicine; he resigned this position to serve a year as lieutenant in the Army Medical Corps. In 1915 the Terrell Laboratories, of which he has continued as owner and director, were established. In addition to serving practitioners and patients throughout the Southwest, the laboratories, branches of which are in Fort Worth, Abilene, Amarillo, Corpus Christi, and Muskogee, carry on research regularly. Dr. Terrell is author of scores of articles on medical subjects. For more than five years beginning in 1932 Dr. Terrell was director of Methodist Hospital, and he now is medical director of All Saints Hospital.

Dr. Terrell's medical affiliations include the Southern Medical Association, American College of Physicians, College of American Pathologists, American Society of Clinical Pathologists, American Board of Pathology, American Public Health Association, American Hospital Association, Association of American Physicians and Surgeons, American College of Allergists, Texas Heart Association, and Texas Rheumatism Association. In addition he is a member and past president three times of the Texas Society of Pathologists, member and past president of the Tarrant County and the Thirteenth District Medical Societies, and past president of the old six-state Southwest Medical Society. He currently is a member of the Texas State Board of Health.

He is an Episcopalian, a Royal Arch Mason, a Shriner, a Rotarian, and a director of the Fort Worth Chamber of Commerce. He is a member of the Fort Worth Club, Colonial Country Club, and Fort Worth Boat Club and enjoys hunting and fishing. He has numerous business interests, being co-owner of the Terrell Supply Company, a surgical and hospital supply concern, and an investor in ranching and oil properties.

Recognized by his colleagues as a champion of the free enterprise system and a man of business acumen, as well as an accomplished pathologist, Dr. Terrell enters the office of President of the Texas Medical Association with the respect, admiration, and personal good wishes of associates in medical, hospital, and business fields. Many members of the Association feel that his broad experience both in and out of the organization make him one of the ablest leaders the medical profession in Texas ever has had, and few doubt but that with proper support from the membership his administration will be long remembered as one of the best.

ANNUAL SESSION IN A NUTSHELL

To condense into one or two pages a report of five days crammed with business, scientific, and social activities is difficult, but perhaps some of the high points of the 1952 annual session of the Texas Medical Association and its Woman's Auxiliary might be called to the attention of those who were unable to be present and of those who were so busy with one part of the multi-sided program as to miss significant events elsewhere.

Dr. Allen T. Stewart, Lubbock, and Mrs. O. W. Robinson, Paris, led the Association and Auxiliary through their respective meetings and then relinquished their presidential posts to Dr. T. C. Terrell, Fort Worth, and Mrs. Robert F. Thompson, El Paso. Understudying these positions in the coming year will be Dr. George Turner, El Paso, and Mrs. E. W. Coyle, San Antonio, who were named presidents-elect. The Association chose Dr. W. V. Ramsey, Abilene, as vice-president; Dr. Robert B. Homan, Jr., El Paso, as speaker of the House of Delegates; Dr. Hobart O. Deaton, Fort Worth, as vice-speaker; and Dr. Robert W. Kimbro, Cleburne, as trustee to succeed Dr. F. J. L. Blasingame,

Wharton. Dr. J. M. Travis, Sr., of Jacksonville, was elected general practitioner of the year.

As has been announced previously, the 1953 session, which will celebrate the centennial anniversary of the establishment of a statewide medical organization in Texas, will be held the week of April 26 in Houston with headquarters at the Shamrock Hotel. San Antonio will be the host city in 1954.

Four scientific exhibits were cited as meritorious: "Roentgenology in Obstetrics" by Dr. William Snow, Shreveport, first place for an exhibit by an individual and "Some Common Gynecologic Conditions" by Dr. Karl John Karnaky, Houston, honorable mention; "Sympathetic Nerve Blocks" by Dr. F. A. Duncan Alexander of the Veterans Administration Hospital, McKinney, first place for an exhibit from an institution, and "Hysterosalpingography" by Drs. R. P. O'Bannon, Otto Grunow, and T. U. Taylor of the Harris Clinic, Fort Worth, honorable mention.

Attendance at the Dallas meeting set no record, but the 1,962 who registered seemed to consider the session a success. There were 1,267 members, 2 guests, 84 visitors, 209 technical exhibitors, and 400 Auxiliary members and guests present officially.

Organizational Changes

As reflected in the list of officers, the House of Delegates made final its intention to provide for a vice-speaker of the House of Delegates. It also made Texas delegates and alternate delegates to the American Medical Association ex-officio members of the House, and decided that the Association should pay the expenses of its delegates when they attend meetings of the A.M.A. House of Delegates. It was agreed also that a representative from each of the Texas chapters of the Student American Medical Association should be invited to attend meetings of the Texas House of Delegates as observers with the privilege of discussion and debate.

Inactive membership for physicians who have retired from practice became a reality, such members to pay $4 per year as dues. Initial steps were taken to establish an associate membership for nonphysician members of medical school faculties and to permit recent graduates in medicine who are called to military service before they are eligible to join a county medical society to take advantage of military membership. These latter provisions, because they involve changes in the Constitution, cannot be acted upon finally until next year.

An important advance was made toward cooperation with Negro physicians in the state. The House voted to invite members of the Lone Star State Medical Association to attend scientific sessions of the Texas Medical Association and its component county societies whenever the facilities where the meetings are held are open to such joint meetings. County societies were encouraged to change their meeting places if necessary to permit Negro physicians to attend. The Texas delegates to the American Medical Association were instructed to request the A.M.A. to consider the Lone Star State Medical Association as an affiliate of the Texas Medical Association and of the A.M.A. Cooperation of the Texas Medical Association with the Lone Star group in its scientific and educational endeavors was pledged, and the Association went on record as favoring the attendance of Negro students at the medical schools already in operation in Texas.

Medical Education

In addition to making note of the importance of educating Negro physicians, the House of Delegates considered other facets of medical education. It was decided that the success of the postgraduate telephone broadcasts sponsored by the Association in recent months was such that a series of four broadcasts should be provided during the coming year. Practicing physicians were encouraged to take advantage of short refresher courses offered by the various

educational agencies operating in the state, but they were warned again that they should not accept financial emolument for attending these courses. The Association affirmed its confidence in the administrators of the medical schools and agreed that they should be permitted without censure to cooperate with state agencies as they deem advisable. The aims of the American Medical Education Foundation were endorsed and members of the Association invited to make personal contributions to it in an effort to help solve the financial plight of medical schools throughout the nation. The Association offered to provide lecturers to the medical schools on medical organization, ethics, and practice, and recommended that county medical societies voluntarily prescribe a series of lectures along the same general lines as prerequisite for membership. The problem of educating physicians who will locate in rural areas for general practice was considered, and the preceptorship program of the University of Texas Medical Branch was recommended to the other medical schools. Furthermore, a study of the feasibility of establishing a foundation to give financial aid to students who agree to practice medicine in rural areas was authorized.

Awareness that the distribution of physicians, especially in rural communities, is a continuing problem was evident in several committee reports. The House approved vigorous efforts on the part of the Association's Physicians Placement Service to help communities needing physicians to get in touch with physicians looking for new locations. It also recognized that a survey of physician distribution problems would be valuable. Note was made of the offer of the Texas Academy of General Practice to cooperate in this area of activity.

A broadening program of public relations was favored with recognition that adequate doctor distribution, reliable emergency telephone service, pleasing techniques in the doctor's reception room, and available grievance committees are logical aims for the immediate future. The House amended the By-Laws to direct the establishment on the county level of public grievance committees to act as clearing houses for complaints, but reserved adjudication for the already established boards of censors, district councilors, and the Board of Councilors.

Scientific Problems

Scientific problems relating to the medical profession and the public were voluminous. The House authorized the establishment of a permanent Association committee to coordinate the work of blood banks in the state and to set up minimum standards for them. The importance of the medical profession in the control of alcoholism was reaffirmed, and cooperation of the Association with other reputable agencies such as the Texas Committee on Alcoholism, Inc., was encouraged. The House favored establishment of a state hospital for the criminally insane and recommended that the governor be requested to appoint a greater proportion of specialists in tuberculosis and mental health to the Board for Hospitals and Special Schools. Creation of a united medical fund on the national level was frowned upon, but local united fund campaigns were exempted from the action. Certification of clinical psychologists but not their licensing was approved. Approval was given a resolution condemning the proposed establishment of a national board to certify medical microbiologists without a medical degree. Further efforts to assure medical care of indigents locally and to increase voluntary health insurance coverage were favored.

Legislation affecting medical practice received its share of consideration. The House voted to back measures to stiffen the Medical Practice Act by giving the Board of Medical Examiners authority to revoke as well as to issue licenses and by permitting an increase in fees to finance a better program of investigation. Also approved were proposed steps to amend the workmen's compensation laws to

permit free choice of physician by patients covered by the laws.

Mr. Arthur L. Conrad of Chicago, one of the Association's guests, presented a challenging message to more than 400 physicians and their wives in the final luncheon meeting, and Dr. Robert P. Glover of Philadelphia, the other guest, gave masterful reports of his experience in surgery of the heart.

The displays of commercial products useful to the physician in his practice as usual added much to the scientific value of the session although the lack of sufficient exhibit space prevented many friends of the Association from presenting their wares this year.

Well chosen contributions from members of the Association and a number of nonmember participants assured the success of the nine scientific section programs, and more than a dozen related scientific societies and educational and social organizations added to the success of the session.

The transactions of the House of Delegates and minutes of the general meetings will appear in detail in the June issue of the JOURNAL, and a report of the meeting of the Auxiliary will be published in the July JOURNAL. Reference to both of these issues will refresh the memory of those who attended the Dallas session and call attention to important action for those who stayed at home.

A.M.A.'s ANNUAL SESSION

A wealth of medical information providing postgraduate education for physicians and outstanding entertainment will be offered at the one hundred and first annual meeting of the American Medical Association to be held in Chicago June 9 to 13. The convention arrangements committee has announced that in addition to the complete programs of the scientific sections, there will be 2 miles of technical exhibits, 1½ miles of scientific exhibits, more than twenty-five luncheons, a color television program originating at Wesley Memorial Hospital, and many forms of entertainment for physicians and their wives.

Meeting concurrently with the Association in Chicago will be the Woman's Auxiliary to the American Medical Association. Headquarters for the Auxiliary will be the Conrad Hilton Hotel. Association meetings will be centered at Navy Pier with some section programs being held at Sheraton Hotel and Thorne Hall of Northwestern University. The Palmer House will be the scene of several meetings of the House of Delegates, some council meetings, and the President's Reception and Ball.

Special buses between Navy Pier and hotels in the Loop will provide transportation and express buses will be available at the Pier each afternoon. Visitors will be welcome at the headquarters building of the American Medical Association during their stay in Chicago.

In addition to the exhibits, three exhibit symposiums will be presented on diabetes, overweight, and cardiovascular diseases. Question and answer periods on these subjects will be conducted continuously in rooms adjacent to the exhibits.

Many Texans will participate in the convention program (pages 304-307) as well as by attendance in Chicago. Physicians are invited to take part in all phases of the meeting and in particular to observe the actions of the House of Delegates and appear before the reference committees.

Hotel reservations should be made at once by writing to Dr. Fred H. Muller, 105 West Madison Street, Room 1707, Chicago 2.

BUILDING DEDICATION SET FOR SEPTEMBER

Many hours of planning and work by officers and committee members of the Texas Medical Association will be climaxed when the move to the new building at Lamar at Nineteenth in Austin is made. Plans have been announced by the Committee on the Building Celebration for the opening and dedication of

the building September 19, 20, and 21, in conjunction with the fall Executive Council meeting.

Principal speaker for the formal dedicatory services will be Dr. Louis H. Bauer, Hempstead, N. Y., who at that time will be serving as president of the American Medical Association. Special exhibits will be prepared for display. Members of the Association, Auxiliary members, and interested citizens will have an opportunity to tour the building which will house the library and central offices of the Texas Medical Association.

Invitations will be extended to local and out-of-state dignitaries; to leaders in government, education, labor, and business; to representatives of other state medical associations; and to other interested persons throughout the United States and Mexico.

The untiring efforts of the Board of Trustees, the Building Committee, and the Committee on the Building Celebration will be rewarded and the central office staff will have a new home of which the physicians of Texas can indeed be proud.

Moving to the central office from the present location is expected to be accomplished in August. Further plans for the opening services will be announced later.

ESSAY CONTEST WINNERS ANNOUNCED

Enthusiasm over the essay contest on the private practice of medicine sponsored nationally for the sixth consecutive year by the Association of American Physicians and Surgeons has been strong in Texas and throughout the United States. Winners in the contest, names of whom have just been announced, were up against competition from forty-one states, seven of which had statewide contests with suitable awards. First place of $1,000 in the national contest was won by Bill Carr, senior student in a high school at Gulfport, Miss. New Hampshire, California, and Indiana also were represented in the top bracket.

Texas is proud of Miss Jean Pinkston, senior at Sunset High School, Dallas, whose entry was judged best of all the essays in Texas. She has been awarded a $250 prize by the Texas Medical Association, which, with its Woman's Auxiliary, sponsored the contest in the Lone Star State. Miss Pinkston, the 17 year old daughter of an attorney, is an honor student who has participated in a variety of school activities. She plans to attend either Southern Methodist University or the University of Texas to major in languages and to follow a premedical course. Miss Pinkston was presented to the county society presidents and secretaries in their first annual conference in Dallas during the recent annual session and also had an opportunity to meet with the Auxiliary. Her essay is printed elsewhere in this JOURNAL.

Clark Carpenter, Port Arthur, won second place in the Texas contest; Veta Gardner, Houston, third; and Marshall Roch, Henderson, fourth.

The essays which the high school students prepared readily show that the young people who entered the contest became aware of some of the problems of medical economics which face the world today. Generation in these students of a greater understanding of such problems, with which their parents are dealing now and with which they will be confronted in a few years, is advantageous to them and to the medical profession.

"BLINDFOLD A PAIR"

The person who is not a habitué of short order restaurants may experience a feeling of mild exasperation when he hears his order for eggs translated in the waitress's parlance as "blindfold a pair."

Now suppose that the gourmet under discussion is a doctor—just any doctor. What right has he to be annoyed when his own conversa-

tions and writing may be so sprinkled with medical gobbledygook and double talk that his patients can't understand him and his colleagues have to think twice to get his meaning?

Granted, this analogy can be overdrawn; some medical terms defy simplification. But it has become increasingly evident that medical literature often falls short of its desired mark of understandability—not only for lay audiences but for those supposedly "in the know."

What is to blame? Many factors, of course. Perhaps an outstanding one is the physician's tendency to make his writing unnecessarily complex. As J. W. Howie pointed out:

"Doctors and scientists usually seem to dislike writing about their work: 'I hate the writing-up,' they often say. Perhaps it is the 'up' that does the harm. ... Writing-up suggests that the author feels the need to do something beyond communicating his facts and thoughts...."[1]

Another common failing of medical essays is the lack of a single purpose; often this purpose can be crystalized and stated simply in an introductory paragraph or summary. A good summary is the "window dressing" of the article; it can mean the difference in whether or not the paper will be read.

According to an oft-quoted anecdote, a preacher with little formal education but much eloquence once summed up the reason for his success in the following fashion: "First, I tell 'em what I'm gonna tell 'em. Next, I tell 'em what I got to tell 'em. Then, I tell 'em what I just tole 'em." So it should be with medical essays: Each should have an introduction, a body, and a summary.

Sheer repetition is not the answer, however, as the *New England Journal of Medicine* aptly suggests:

"Needless to say,—perhaps,—any paper that is fit to be published is written in as good English as the author can muster and is then rewritten at least twice, with a number of words discarded at each writing; for anything that is worth saying at all is usually said twice as well in half the number of words. Its tables and charts are few and simple, and properly captioned. In its final state it is crystal clear and informative and meets some need other than that of the author for publicity.

"After all, the only really valid reason for writing a scientific medical article is to present the results of useful investigation or seasoned experience, thus adding to the sum of medical knowledge, or to bring together and correlate existing knowledge in order to make it more easily available...."[2]

The reference to tables and charts brings to mind another important consideration—illustrations to accompany the article. Visual interpretation, too, is a kind of language; it is necessary to learn the proper uses of the various pictorial media in order to achieve the greatest enhancement of the written contribution.

The scalpel has long been a symbol of the prowess of the medical profession. To attain recognition among his medical colleagues whom he does not meet in his daily practice, the doctor needs to wield other tools—his pen to evoke word pictures and his camera and drawing board to supplement his words. He must learn to communicate to the reader in the simplest and most effective way his ideas on techniques—diagnostic, therapeutic, and otherwise. It is hoped some of the articles in this issue of the JOURNAL will help him in this task.

1. Howie, J. W.: On Writing to Be Read, Lancet *2*:320-321 (Aug. 25) 1951.
2. Jingle Bells; editorial, New England J. Med. *245*:988 (Dec. 20) 1951.

Manuscript Editing Service Established

The American Medical Writers Association recently established a manuscript editing service as a means of improving medical journalism. For a small fee the association will have medical manuscripts up to 5,000 words, edited and criticized. The Association is a nonprofit organization with no salaried officers, and its membership includes a large group of medical editors and writers. Further details may be obtained from the secretary, Dr. Harold Swanberg, 209-224 W. C. U. Building, Quincy, Ill.

Life Span of Wage Earners Increased

Longevity among American wage earners and their families increased to a new high in 1951, according to the Metropolitan Life Insurance Company. The expectation of life at birth rose to 68.5 years, a gain of about one-fifth of a year over 1950 figures. Expectation of life at birth has doubled since the latter part of the nineteenth century. The gains are attributed to more healthful living and working conditions, better food, and outstanding gains in medical science and public health administration.

ORIGINAL ARTICLES

EPISTAXIS

I. Etiology, Anatomy, and Surgical Pathology

CLAUDE C. CODY, III,* M.D., F.A.C.S., Houston, Texas

IF one can judge from the literature, the subject of nasal hemorrhage has proved popular, both from the many case reports and from the numerous methods of control of the hemorrhage. In much of this work on epistaxis, the subject of etiology has been covered rather well. However, little serious effort has been made to correlate the etiology with the anatomy and surgical pathology of the nose.

ETIOLOGY

It seems fitting that the etiology of nosebleed should be summarized first. The outline in table 1 is self-explanatory, and numerous works treating each subject rather thoroughly can be found in the literature. Such a classification may prove useful.

TABLE 1.—*Etiology of Nosebleed.*

- Trauma
  - Fracture
  - Postoperative injury
  - Epistaxis digitorium (vestibulitis)
  - Foreign bodies
- Cardiovascular disease
  - Hypertension
  - Arteriosclerosis
  - Congenital familial telangiectasis (Osler's disease)
- Blood dyscrasias
  - Leukemia
  - Hemophilia
  - Polycythemia vera
  - Purpura hemorrhagica
- Inflammation
  - Acute rhinitis
  - Chronic rhinitis
  - Atrophic rhinitis
  - Acute xanthemas
  - Granulomas
    - Tuberculosis
    - Syphilis
    - Rhinoscleroma
- Neoplasm
  - Benign
  - Malignant
- Miscellaneous
  - Vicarious menstruation
  - Vitamin deficiency
  - Chronic irritation
    - Chemical irritant
    - Irradiation
    - Excessive smoking
  - Diseases of liver and spleen
  - Spontaneous anterior septal hemorrhage (childhood)

Read before the Texas Society of Ophthalmology and Otolaryngology, Austin, December 7, 1951, and the Section on Eye, Ear, Nose, and Throat, Texas Medical Association, Annual Session, Dallas, May 7, 1952.

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ANATOMY

To understand better the cause and especially the control of nasal hemorrhage, a thorough knowledge of the anatomy of the nose and its blood supply is essential. For children and adolescents, the most frequent site of nasal bleeding is on the anterior septal wall near the mucocutaneous junction. This area has been described as Kiesselbach's area or, more properly, Little's area. This location on the septum contains the terminal arterioles of the nasopalatine branch of the sphenopalatine artery. Here, also, are found the final ramifications of the anterior and posterior ethmoid arteries, the terminal branches of the greater palatine artery as it ascends through the incisive foramen in the hard palate, and small communicating twigs from the superior labial artery. All of these terminal arteries and capillaries communicate freely with one another. Thus both the internal carotid and external carotid arteries play a part in the blood supply of the nose. Both ethmoid arteries are branches of the ophthalmic artery, the first major branch of the internal carotid artery. All of the other vessels are derived from the external carotid artery.

More intimate inspection of Little's area reveals the vascular plexus to be composed of numerous arterioles and venous channels lying just within the nasal mucous membrane. Here the nasal mucous membrane is composed of a pseudo-stratified columnar type containing mostly mucus producing cells and a few nonciliated columnar cells. In the tunica propria, numerous capillary loops extend up to and possibly into the epithelium. Eventually these capillary loops lie between the columnar cells or beneath the mucus producing cells.

Biopsy specimens taken of Little's area after a series of nasal hemorrhages in which no local therapy was applied have been said to show relative absence of inflammation and little attempt at local healing as late as three weeks after the bleeding episode.[3] This was attributed to so-called "endogenous factors" which with certain additional exogenous factors were thought to contribute to the initiation and recurrence of nasal bleeding.

Certainly this language seems a little vague at best.

More appealing to a rational observer is the fact that excessive drying of the nasal mucus greatly reduces its protective value and this renders the capillary bed of the nose more accessible to trauma. Clinical experience has shown that an excessively dry nasal mucous membrane does not develop the inflammatory reaction or healing capacity of a healthy mucous membrane.

It is immediately evident that only minor trauma or drying of the overlying mucous blanket will readily expose many of the tiny vessels. Clinical observation has shown that in the child with repeated nasal bleeding the anterior septum is dry and frequently covered with crusts. The same situation exists on a sharp anterior septal spur. Hilding observed that shutting off the air in a nostril will allow the tissues to return to normal when the protective mucous sheath is present. Hunnicutt[5] utilized this principle in cases of anterior septal bleeding by having the child wear a light cotton plug in the nostrils about fifteen minutes at a time, two or three times a day.

Attention should be directed next to the lateral nasal wall. The anterior ethmoid artery supplies the superior and anterior portion of this wall, while the minute posterior ethmoid artery supplies a small portion of the superior wall in the posterior aspect. The major portion of the blood supply of the lateral wall is supplied by relatively large branches of the sphenopalatine artery. Burnham[2] has described these branches of the sphenopalatine artery as the inferior turbinate artery, the middle turbinate artery, and the nasopalatine artery. His careful study of the blood supply of the lateral nasal wall has clarified the picture tremendously.

The inferior turbinate artery reaches the posterior tip of the inferior turbinate in the periosteal layer. It then divides into three terminal vessels which course forward in the turbinate in their respective bony canals. The first is the canal with the antral vessels, which runs forward at the junction of the inferior turbinate with the lateral nasal wall. The second is the superomedial canal, which carries its vessel anteriorly to the medial surface of the turbinate. It is a little below the antral canal. The third canal has been

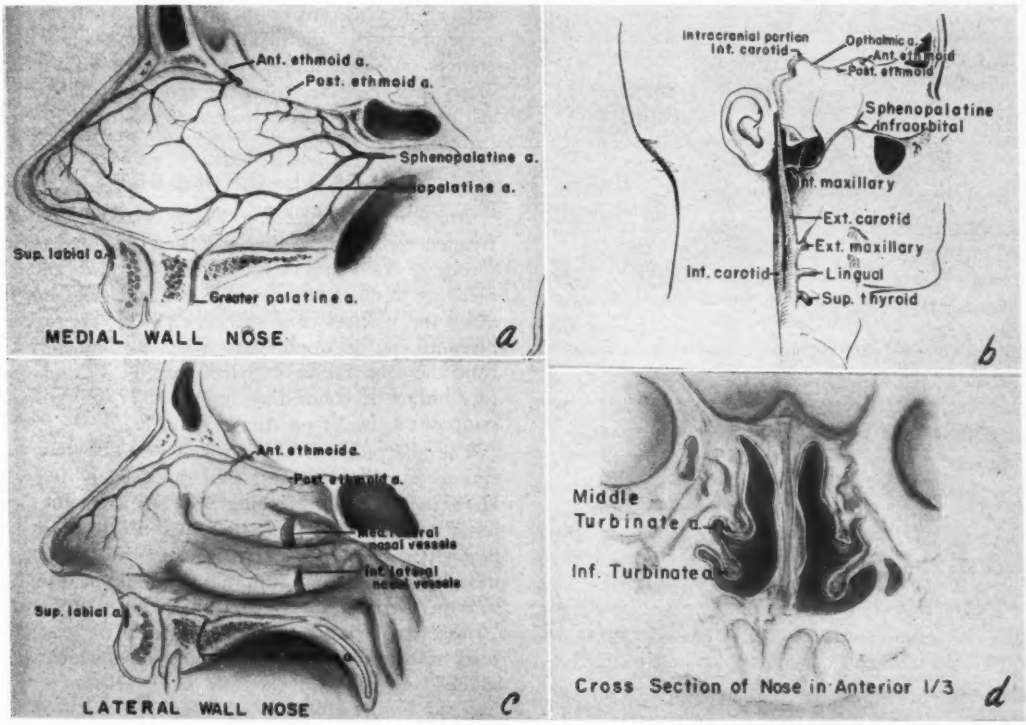

FIG. 1. Semischematic drawings of the nose showing anatomy of importance in epistaxis.

a. The medial wall of the nose.

b. The main branches of the external carotid artery and the first major branch of the internal carotid artery.

c. The lateral wall of the nose. The lateral nasal vessels lie in bony canals, and those of the inferior turbinate are of especially large caliber.

d. A cross section of the anterior one-third of the nose. Note especially the lateral position in the turbinates of larger vessels; this position has proved to be of clinical importance.

called the inferolateral canal and carries its vessel to the lateral surface of the turbinate.

The middle turbinate artery reaches the under surface of the middle turbinate near its posterior end. It runs forward in the periosteum to the junction of the posterior and middle thirds, and here it, too, enters a bony canal. Very soon afterward, in about the midportion of the turbinate, all three terminal vessels arise. One is a branch to the lateral surface of the turbinate; one is a branch to the medial surface; and one is a small branch along the inferior surface of the turbinate.

The nasopalatine artery arises at the sphenopalatine foramen from the sphenopalatine artery. It sends branches to the posterior ethmoid cells, the anterior inferior surface of the sphenoid sinus and its ostium, the superior turbinate, and finally the nasal septum.

Also, nosebleed may arise in the maxillary sinus. This is sometimes a little difficult to diagnose if not suspected. However, transillumination and roentgen ray help to settle any doubt in such a case. It must be remembered that the maxillary antrum has two main sources of blood supply; one from the infra-orbital artery and the other from the sphenopalatine artery. All of the blood supply is derived from the external carotid artery.

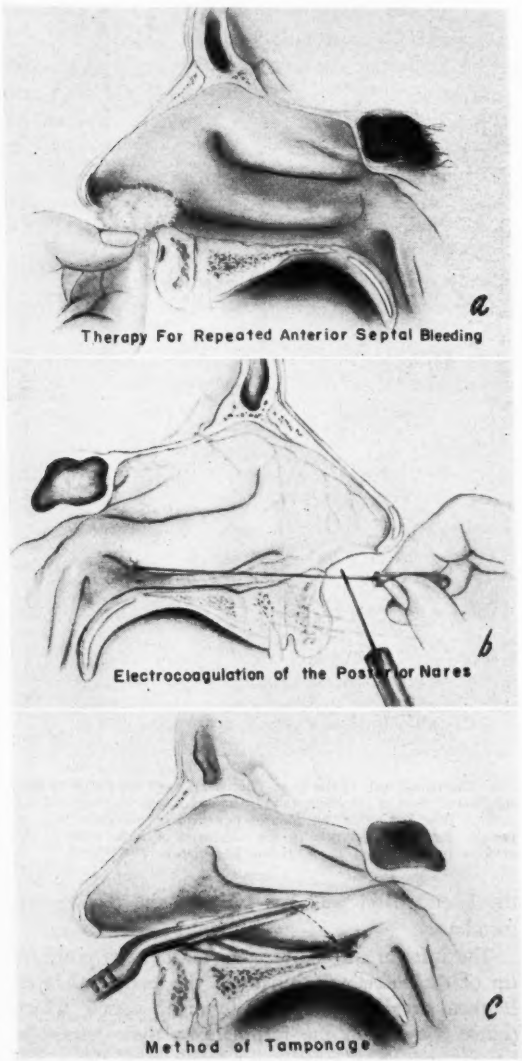

FIG. 2. Drawings demonstrating therapeutic techniques in epistaxis.
a. Cotton occluding the anterior nares to allow return of mucus to the nasal mucous membrane after repeated anterior septal bleeding.
b. Electrocoagulation of the posterior nares by means of a copper cotton carrier held firmly against the anesthetized bleeding point.
c. Cigar shaped cotton tampons firmly placed along both the lateral and medial margins of the inferior turbinates, and along the middle turbinate in indicated cases.

CONTROL OF BLEEDING

Anterior septal bleeding, which is by far the most frequent seen in the usual office practice, occurs mostly in children and young adults. Control of such bleeding is relatively easy and as a rule does not require the services of a specialist. Even this type of bleeding can be troublesome when it frequently recurs, and most otologists have worked out a satisfactory means of controlling it. Another paper in this symposium dwells on this subject.[10]

The real problem in control of nasal bleeding occurs as a rule in patients past the age of 40 years. Here, the source of bleeding is mostly from the posterior aspect of the nose, or sometimes from its superior portion. A good knowledge of the anatomy of the nose and its blood supply is a real aid in bringing such hemorrhage under control. In my small series, 10 cases requiring hospital care within the last five years have been collected. Only those cases which were studied and followed carefully in the Houston Eye, Ear and Throat Hospital are listed (table 2).

TABLE 2.—*Patients Past 40 Years of Age Hospitalized for Nasal Hemorrhage in Houston Eye, Ear and Throat Hospital.*

No.	Age	Blood Pressure	Location	Treatment
1	62	160/90	Lateral wall of inferior meatus, far back	Tamponage
2	54	150/85	Lateral wall of inferior meatus, far back	Electro-coagulation
3	65	170/90	Lateral wall of inferior meatus, far back	Electro-coagulation
4	58	140/80	Middle of septum, high up	Tamponage
5	48	130/80	Anterior part of lateral wall, high up	Ligation of anterior ethmoid
6	68	128/80	Lateral wall of inferior meatus, far back	Electro-coagulation
7	64	130/88	Lateral wall of inferior meatus, far back	Electro-coagulation
8	58	140/80	Lateral wall of middle meatus, far back	Tamponage
9	70	180/90	Lateral wall of inferior meatus, far back	Electro-coagulation
10	49	148/80	Septum, midportion, high up	Tamponage

In this series, certainly a dominant number (6) of cases presented a bleeding point high up under the inferior turbinate at its posterior aspect. Woodruff found this site involved in 14 out of 28 cases of posterior nasal hemorrhage. He described a venous plexus in this area which lies partly in the nose and partly in the nasopharynx and suggested the name "naso-nasopharyngeal plexus." He stated that "In many people with advancing years, the veins become diseased as well as the arteries, and phlebosclerosis is perhaps as common as arteriosclerosis, although it is often passed over or neglected. It may be that some of the severe hemorrhages come from the diseased veins which usually lie more superficially than do the arteries."[11]

One striking finding in the present series which differs from many reported is that hypertension was not a prominent feature. Three, or at most 4, of the patients in this series could be stated as having hypertension, and none severe. This fact suggests that arteriosclerosis and possibly phlebosclerosis were the more important etiologic factors, along with some added factor such as irritation or an infection in the upper part of the respiratory tract to initiate the nasal hemorrhage. Most of the patients in the series on careful questioning admitted a recent infection in the upper respiratory tract.

In handling any of the posterior nasal hemorrhages, proper equipment greatly expedites the procedure, both for the patient and the operator. Adequate light and suction are essential. It is unfair to the patient in such a case to attempt treatment in a poorly equipped home, except in a severe emergency. All otologists have experienced that referred case in which prolonged local treatment had exhausted both the doctor and his patient. Such patients frequently present a severely traumatized nose with torn and denuded nasal mucosa. Coarse gauze packing in such a nose only adds further insult to the nasal tissues.

At the risk of pointing out the obvious, it must be emphasized that as an initial step, every effort must be made to locate the bleeding point of the nose, for once this is seen, control is easy. If this precaution requires a submucous resection of the nasal septum to see the posterior nares, it should be done. If the otologist cannot see under the middle or inferior turbinates when bleeding is coming from those areas, they should be infracted medially, or even a portion of their wall resected. Once the bleeding point is seen, electrocoagulation, using a copper cotton carrier to conduct the current to the bleeding area, has proved to be a useful method in my practice. The carrier is small enough to be applied directly to the bleeding site without damaging normal tissues and allows the operator good vision of the tip at all times. Small cigar shaped cotton plugs can be laid between the turbinate and the lateral nasal wall if this is thought necessary.

In rare cases, as in one of this series, the anterior ethmoid artery may have to be ligated by an external approach. Occasionally the antrum will have to be entered to gain access to the bleeding point.

CONCLUSION

Anterior septal bleeding, although a frequent clinical finding, can be easily controlled. Troublesome posterior nasal hemorrhage usually requires the attention of a physician with special training and special equipment. A knowledge of the anatomy and blood supply of the nose is a prerequisite for the most efficient handling in this type of case. When at all possible, treatment should be carried out in a special emergency or operating room where proper light, suction, electrocautery, and assistance can be obtained. The physician should make every effort to see the bleeding point before packing the nose. This precaution will prevent much grief to both the doctor and the patient. A bleeding point that is seen is one that can be controlled.

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ABSTRACT OF DISCUSSION

DR. A. F. CLARK, JR., San Antonio: Dr. Cody's paper offers a well rounded review of the problem of nosebleed. The anatomic relationships must be well understood by all who would handle nasal hemorrhage for if local measures of cauterization, electrocoagulation, or packing are unsuccessful, surgical intervention must be considered. Even then a period of watchful waiting may be necessary to assure the physician that further surgical procedures are not needed.

I agree that severe nosebleed can best be handled in a well equipped emergency or operating room. Few emergency rooms offer all necessary facilities, however, and the physician must often improvise at the time, or keep his own instruments handy in his medical bag. I insist on seeing a patient with even a mild epistaxis in either my office or the emergency room.

Contrary to Dr. Cody's experience, I am certain that well over 60 per cent of the adult nosebleed patients that I see are hypertensive. Rather than the constant elevation of blood pressure, most of these patients exhibit a fluctuating pressure so that the nosebleeds are intermittent and subside with lowering only to recur when a peak of blood pressure again presents itself. I feel that arteriosclerosis with relatively noncollapsible vessels is present much of the time. Bed rest, sedation, and antihypertensive drugs (possibly the Veratrum viride compounds) are a necessary adjunct to local therapy. Coagulants and Oxycel have been of little value in my hands.

EPISTAXIS
II. Local Treatment

JAMES T. ROBISON, M.D., Austin, Texas

EPISTAXIS, for practical purposes, is divided into mild and profuse bleeding cases. It is well known that epistaxis is often a symptom of pathologic conditions in the body such as blood dyscrasias and acute febrile diseases. It is assumed that proper treatment of any existing disease is being carried out, and this discussion is concerned with the more localized conditon of the nosebleeding.

MILD BLEEDING

Cases of mild bleeding form the large majority of cases of nosebleed. The patient usually is seen in the office and often is not bleeding at the time. A small cotton swab saturated with 10 per cent cocaine solution should be gently rubbed over Kiesselbach's or Little's area, the floor of the nose near the septum, and the anterior tip of the inferior turbinate until a bleeding point shows up. If this method fails, the nasal passage must be inspecred with a nasopharyngoscope; then if nothing suggestive is found, the patient must be seen at the time he is bleeding.

Alteration of Vascular Bed

The first of two general types of treatment comprises methods that alter the vascular character of the bleeding area. This treatment may involve use of the cutting and fulgurating current, the cauterizing action of trichloracetic acid in full strength, or the chromic acid bead. A solution of 10 per cent phenol in olive oil[19] or the Sylnasol solution of Fox[4] may be injected submucosally at the site of bleeding. The submucous elevation of the mucous membrane at the bleeding site is often effective as is a submucous resection of the rigid nasal septum in instances in which a spur is involved. When bleeding occurs from the anterior portion of the nasal septum, I often have cut a circle around the area and packed the nostril with a strip of Vaseline gauze ½ inch wide to stop the bleeding from the cut. The incision must go through the perichondrium. This treatment has proved simple and effective in children or adults. Ten per cent cocaine solution is used topically for anesthesia, as it is in the submucosal elevation procedure. Some have advocated the application of radium in these milder forms of bleeding.[14]

Pressure, Coagulation, and Vasoconstriction

The second general type of treatment comprises methods that do not alter the character of the vascular bed and are more temporary in their results. This treatment stops the bleeding chiefly by means of pressure, which may be applied by using a half-inch strip of Vaseline-covered gauze, the intranasal balloons of Stevens,[17] or fingers cut from old rubber gloves and filled with Vaseline gauze packing, or by squeezing the alae of the nose together. The salt pork wedges written about by Hurd[8] and Cone[2] achieve results through coagulating ability as well as through pressure. One author[7] advocated plugging the nostrils with cotton for fifteen minutes three times a day. He maintained that exclusion of air allows the membrane to resume its normal condition more quickly. Coagulants used are thrombin, fibrinogen, hemoplastin, vitamin K,[13] and Oxycel. The Oxycel[6] works much better if the bleeding is associated with the alterations in blood elements characterizing the leukemias, anemias, and the like, for it causes less trauma of the membrane than does gauze packing and may be left in the nose. According to Hallberg,[5] the absorbable gauze should be placed lightly over the bleeding area; if packed tightly, it causes necrosis of the mucous membrane. If the friability of the vessel walls is a factor, as in familial hemorrhagic diathesis, the drug rutin with ascorbic acid is of great help. In such cases a tourniquet test may give a clue to the medical therapy. The vasoconstrictors used are ice, adrenalin, and posterior pituitary extract.[12] A method must be selected to suit the individual case, for a person's habits, environment, and age will have a bearing on what is done to control a mild epistaxis case.

Read by request before the Texas Society of Ophthalmology and Otolaryngology, Austin, December 7, 1951.

SEVERE BLEEDING

The more severe cases of epistaxis cause much more worry and concern than do the milder forms. One physician[5] has stated that he never hurried to attend a nasal bleeding case, for it usually stopped itself if given a little time. It is my belief that some cases call for hurry, although others do not. If there is doubt, it must be resolved by precaution favoring the patient.

The patient suffering from severe or profuse epistaxis usually is seen in his home, his hospital room, or in the hospital emergency room. If he is at home, the physician immediately must survey the situation to assess its critical character and the available facilities for treatment. If the patient is in possession of his faculties, he should be kept propped up at a 45 degree angle or more to give him the benefit of reduced cephalic blood pressure. Of course this cannot be done if the patient is unconscious and bleeding or is so full of narcotics that he has lost his cough reflex. Sometimes the patient is noticeably pale from loss of blood. A few moments of observation will reveal whether he is suffering from shock or from nausea caused by swallowing blood. If he has been in an accident and possibly has a cerebral injury, morphine may be contraindicated. Nothing else quiets the patient's fears and anxiety so well as does the injection of 1/6 grain of morphine. It also lessens the bleeding and permits steps toward hemorrhage control with less disturbance and delay. If the bleeding is not too profuse, the patient can be moved to the hospital, where suction and other equipment is available. In some instances the nasopharynx and the nasal passages must be packed before the patient may be moved to a hospital. Once he is in a hospital the nasal suction cannula is used to determine whether the bleeding area is high and back, low and far back, anterior and high, or anterior and low—rarely can the exact bleeding vessel be found.

Again, there are two general types of treatment—those which alter the character of the vascular supply to the bleeding area and those which do not.

Alteration of Vascular Bed

The chief method of the first type is the ligation of a vessel. Three main vessels are to be considered; the one usually considered first is the external carotid artery. If the bleeding is above the middle turbinate, ligation of this vessel may do no good. The ligation preferably is done under local anesthesia. The incision is made along the anterior border of the sternomastoid muscle, with its center opposite the upper border of the thyroid cartilage. At this level the common carotid artery usually bifurcates, but the bifurcation may be as high as the angle of the mandible. The vessel is found through blunt dissection and palpating for its pulsation. When the bifurcation is found, the artery nearest the operator is usually the internal carotid. The external carotid is positively identified by finding its two branches. I insist on noting two branches because once I was about to put my ligature around what I thought was the external carotid, having found a vessel branching off it, when I noticed another vessel branching off the other carotid artery higher up. Closer examination revealed that the first branch came off so near the bifurcation that it could be regarded as coming from either one. I use doubled no. 1 chromic gut for a ligature. If the patient is elderly, it is advisable to feel the vessel carefully for its calcium content and to handle it accordingly. It is easy to break open a brittle vessel during ligation. It is well to have a capable assistant who can handle the suction and control the nasal bleeding while the operation is in progress. Also, at the very moment the vessel is tied off there is sometimes a gush of blood from the nose into the pharynx, and the assistant should be instructed to watch for it. Closure of the wound is a routine surgical closure, no drain being necessary. Collateral circulation is established in about five days.[9] It may be necessary to ligate the opposite external carotid artery also.

If the bleeding is coming from high up, the anterior ethmoidal artery is often the responsible vessel. The incision is made through all tissues down to the bone, the medial end of the eyebrow being in the center of the incision. All tissues, including the periosteum, are reflected downward until the vessel is seen going through the fronto-ethmoid suture line. The distance from the skin surface of the brow to the anterior ethmoid artery is usually about 1½ inches. The vessel appears fairly small in comparison with the quantity of blood which may be coming from it. A small curved mosquito artery forcep and no. 0 plain gut are used in making the ligation. The periosteum is sutured back with no. 0000 chromic gut on an atraumatic needle. Routine closure of skin is all that is necessary.

The literature reports 1 case in which the anterior and posterior ethmoid arteries were destroyed with cutting electric current, and an optic neuritis developed which ended in loss of vision in the eye.[7]

The third vessel to be considered for ligation is the internal maxillary artery. Seiffert[15] advised a transantral approach through a Caldwell-Luc incision. In this procedure the posterior antral wall is opened and the artery is found in fatty-areolar tissue of the pterygoid fossa. A naso-antral window is made, and the Caldwell-Luc incision is closed as usual. The opening into the antrum will necessarily have to be much larger than the usual Caldwell-Luc opening to give

sufficient working room. I cannot see that it offers any advantages over the external carotid ligation, and it is fraught with more possible complications.

Hunnicutt[7] described a unique means of cauterizing a bleeding vessel in the nasopharynx. The patient having been given a nonexplosive general anesthetic, his head is placed in an almost straight down position and the palate is retracted. A metal nasal suction tip is covered entirely with rubber tubing except for ⅛ inch of the tip. A laryngeal mirror is used for looking into the nasopharynx. The suction tip is manipulated through the nasal passage into the nasopharynx, and suction is applied until all blood is evacuated and no more is accumulating. It is assumed that the tip is then on the bleeding point; the cutting electric current is turned on through the suction tip and the vessel is thus sealed over. How practical this is I do not know, having never used it or seen it used. I am a little skeptical of its efficiency in a case of severe bleeding from the nasopharynx.

If the bleeding is from the posterior part of the inferior turbinate, a flat-surfaced crushing forcep may be used to crush the posterior part of the inferior turbinate and stop the bleeding.[7]

Several cases of severe nasal hemorrhage during pregnancy have been reported. Strauss[18] collected 7 cases which included 3 deaths. Hemorrhage occurs most often during the sixth or seventh month of pregnancy. The external carotid artery should be ligated if a good posterior and anterior packing fails to stop bleeding the first time. If the bleeding continues after ligation of one external carotid artery, the anterior ethmoid is ligated, provided the bleeding appears to be coming from above the middle turbinate. If the bleeding is from the region below the middle turbinate, the external carotid artery of the opposite side is ligated. If bleeding continues, interruption of the pregnancy is indicated.

Pressure

In considering the second group of methods to control severe nasal bleeding—those which do not alter the vascular character of the bleeding area—it must be observed that the topical solutions lack the value they have in milder cases, since severe bleeding immediately washes them away. Pressure on the region of the bleeding vessel is the most effective means. A postnasal plug may be pulled up into the nasopharynx and molded into place by finger pressure from below and by traction on the plug from above. Instead of gauze I prefer cotton, rolled tightly and covered with a small amount of Vaseline. Two strings leading from it come out the nasal passage, and one a few inches long hangs down into the pharynx for use when it is time to remove the plug. The two strings which come out the anterior nares are tied tightly over a piece of soft rubber tubing to prevent the plug from slipping backward. This kind of plug is useful when the bleeding is from the nasopharynx. The nasal passages may then be packed tightly with ½ inch Vaseline gauze packing if necessary.

If the bleeding is from the nasal passage itself, a posterior choanal plug is better. It also is fashioned out of cotton and covered with a light layer of Vaseline. It is cone-shaped, the size for an adult being ¾ inch wide at its base and the point coming 1½ inches from the base. This plug also has two strings leading from the apex of the cone and one a few inches long leading from the base to hang down into the pharynx. The plug should be of such size that it will completely fill the posterior choana but not so big as to extend back over the eustachian tube orifice. The strings must be strong enough to stand much pulling. A small rubber catheter is forced back through the nasal passage into the pharynx, where it is grasped with a forcep and pulled out of the mouth; one end of the catheter then will extend out of the anterior nares and the other end out of the mouth. The double string is tied around the end of the catheter extending from the mouth and is led out through the anterior nares by pulling on the end of the catheter which protrudes from the nose. The cotton plug is then pulled tightly into place, pressed and guided by the index finger of the other hand, which is placed in the nasopharynx. The double string extending from the nose is then tied tightly around a soft rubber tube. If there are extensive fractures of the basal sphenoid region and facial bones, this posterior choanal plug can conceivably be pulled up so tightly that additional damage may be done. It is sometimes observed that a freely spurting vessel is underneath a septal spur in such a position that a submucous resection must be done before any direct pressure can be applied.

The packs may be left in place for five days. There is one report[10] that packing was left in for three weeks without any unusual trouble, but I would not advise it. If bleeding has been completely controlled by a posterior and anterior packing for forty-eight hours, I remove it and observe what happens. If the bleeding has not been controlled, all the packing is removed and both sides are packed with choanal plugs posteriorly and strip vaseline gauze anteriorly. If it is not controlled by this procedure, ligation of the proper artery is done, provided a significant amount of blood has been lost.

In all these nasal hemorrhage cases of the profuse type, antibiotic treatment or chemoprophylaxis in some effective form is administered. It acts to keep down infection incidental to the treatment and aids

in the healing of the ruptured vessel. Blood lost must be replaced as it is lost, and for emergency use group O blood should always be available. Vitamin K is given in doses of 5 mg. every four to six hours by injection. Ascorbic acid also is indicated.[3]

COMPLICATIONS

Several complications may arise from nasal hemorrhage. Assume a patient aged 70 years with a blood pressure of 250 systolic whose nose begins to bleed very freely following a headache and some dizziness. The headache and dizziness leave him after a few moments of bleeding. Sudden stopping of the bleeding by a tight posterior plug and anterior nasal packing may cause a cerebral hemorrhage. The proper treatment would be to let him bleed until his blood pressure dropped to about 170, then to stop the bleeding if it continued. Allowing the blood pressure to drop too low may bring on a coronary occlusion.[1] A patient who has previously had a coronary occlusion and who has a nasal hemorrhage should be protected against too great a drop in blood pressure. Loss of vision[11] of varying degrees may occur and is apt to follow repeated hemorrhages rather than one massive hemorrhage. Pneumonitis from aspiration occurs. Osteomyelitis of the base of the skull in the sphenoidal region is reported as a complication of postnasal and nasal packing, with recovery.[16] The most common complications are acute otitis media and acute sinusitis. Acute otitis media requires a myringotomy, and treatment of acute sinusitis relies on antibiotics plus early removal of the packing.

SUMMARY

The majority of cases of nosebleed are mild, but whether mild or severe, epistaxis can be treated by two methods, the first involving an alteration of the vascular supply and the second consisting of pressure, coagulation, or vasoconstriction which does not alter the vascular bed. The first type of treatment in mild bleeding may involve the cutting and fulgurating electric current, a cauterizing solution, or some other locally applied therapy, whereas in severe cases ligation of the offending artery probably is the treatment of choice. The second type of treatment usually involves a packing or plug of some type, although coagulants such as thrombin, fibrinogen, hemoplastin, vitamin K, and Oxycel and vasoconstrictors such as ice, adrenalin, and posterior pituitary extract may be useful in mild cases. In severe nosebleed, antibiotic treatment or chemoprophylaxis, blood transfusion, vitamin K, and ascorbic acid are indicated.

Severe complications may arise in nosebleed, especially in patients suffering from high blood pressure and a history of coronary occlusion. The most common complications are acute otitis media and acute sinusitis.

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Capital National Bank Building.

Vaccinations for International Travel

The World Health Organization has issued a list of vaccinations required at present in 132 countries and territories of travelers crossing international borders by land, sea, or air. Those most generally required are against smallpox, yellow fever, and cholera. Several countries demand inoculation against typhoid and paratyphoid fevers, typhus, diphtheria, and tetanus. On October 1, 1952, the new International Sanitary Regulations adopted by the Fourth World Health Assembly in 1951 will replace the existing international conventions.

Baylor University College of Medicine

As a result of a settlement announced February 28 on the will of the late Mrs. Helen Crosby Simmons, Baylor University College of Medicine will receive a $1,000,000 bequest, reports the United Press.

Americans give an average of about 2 per cent of their gross personal income to philanthropic causes such as religion, education, health, welfare, museums, and libraries. This is less than half of what they spend on alcoholic beverages.

EPISTAXIS

III. Treatment of Massive Blood Loss

LAWRENCE B. REPPERT, M.D., San Antonio, Texas

THERE is little necessity for an internist to preface his remarks on this subject by declaring its magnitude. However, epistaxis has one redeeming feature, for, unlike gastrointestinal, pulmonary, or renal hemorrhage, it is usually accessible. Management due to the accessibility is clearer, but rudimentary factors of the management of hemorrhage remain unchanged.

Traumatic nosebleeds are so often confounded by fractures of nasal, facial, and skull bones and brain injuries that I would like to say only that blood loss here calls for transfusion and then dismiss it.

Arbitrary as classifications are, I would like to divide the causes of severe epistaxis into hypertension and defective clotting, and after considering some practical points about them, go on to transfusion, and finally drugs and other therapeutic measures relative to massive hemorrhage.

CAUSES OF SEVERE NOSEBLEED

Hypertension.—In epistaxis on an uncomplicated hypertensive basis, the physician usually finds the diastolic pressure well over 100 and the systolic pressure often over 200. These patients as a rule have sufficient vascular sclerosis to encourage continual bleeding. These two factors produce a situation not commonly recognized: in spite of the patient having lost enough blood to result in collapse of the vessel in an ordinary person, the systolic pressure while reduced is still high enough to keep the vessel patent. Another pitfall of which the physician should be aware is that a hypertensive person, being physiologically adjusted to much higher levels of blood pressure, at 128/88 may be in complete shock; thus, shock may not be recognized until far advanced. Of lesser frequency but of considerable importance is a history of previous thrombosis and/or angina pectoris, since the loss of blood volume or red blood cells or a marked drop in pressure may well aggravate or precipitate a cardiovascular emergency.

Drugs to lower blood pressure dramatically are of little or no value if bleeding is massive. Bed rest and mild sedation remain the best measures. If the patient has transient hypertensive crises and he is seen before much bleeding occurs, nitroglycerine or intravenous aminophyllin might well be used, but in the static hypertensive patient such measures are fruitless.

Read before the Texas Society of Ophthalmology and Otolaryngology, Austin, December 7, 1951.

Defective Clotting.—It is only in the past two decades that a great deal has been uncovered about the mechanisms of clotting disorders. Unfortunately corrective measures have not kept pace. No attempt is made here to review all known causes of such bleeding, but rather an effort is made to bring forth the ones more commonly encountered clinically.

Purpura hemorrhagica exists in a primary, rare form and in a secondary form. For the primary form, of course, the blood lost must be replaced and frequently this measure will stop the bleeding, but removal of the spleen is indicated. In the secondary form, on the other hand, searching for the cause of thrombocytopenia and hygienic measures are important, and definitely splenectomy is not indicated. As a foremost concern of the otorhinolaryngologist, transfusion and nasal pack is the method of treatment in both forms of thrombocytopenia.

In hemophilia, transfusions of from 50 to 100 to 500 cc. of whole blood may be necessary periodically. Some patients with hemophilia do not respond even to transfusions, and this, of course, is a bad situation. The use of antihemophiliac serum may be tried, but there is much argument as to its efficacy.

Prothrombin deficiencies are due largely to disturbances of the liver such as cirrhosis or obstructive jaundice, faulty absorption as in sprue, or intestinal fistula or is man made via the clinical use of Dicumarol. In the physiologic deficiencies, vitamin K in large doses is frequently successful in controlling the bleeding, but vitamin K and/or transfusion may be necessary if bleeding is massive. In prothrombin deficiency resulting from Dicumarol with massive bleeding, large doses of vitamin K oxide and whole blood are urgently needed and simple vitamin K alone is not sufficient. There is little danger of precipitating excessive clotting with vitamin K in a person with normal prothrombin time.

Excessive heparin as a cause of defective clotting occurs under two circumstances. When heparin is given as an anticoagulant clinically, the result can be controlled easily if aqueous heparin is used as it is rapidly excreted. The use of depo-heparin, which is long acting, is very dangerous, and in bleeding caused by it, transfusion is definitely indicated. Protamine sulfate, a specific antiheparin drug, should be given in 50 to 100 mg. doses as necessary to control the bleeding due to excessive heparin.

The other type of excessive heparin occurs in the heparinoid states. This heparinoid substance resembling heparin is often found in leukemia, aplastic anemia, lymphosarcoma, Hodgkin's disease, and other blood dyscrasias. Here again whole blood transfusions are often effective. However, in terminal states transfusion may not be adequate, and the use of protamine sulfate in the recommended dosage is to be given in support of whole blood. On occasions, particularly in terminal states of the dyscrasias, transfusions and protamine sulfate are not successful.

Another general group is that of the hemolytic anemias and the congenital telangiectasias for which blood transfusion alone is the immediate answer. Epistaxis in acute infection calls for the use of adequate chemotherapy or antibiotic therapy as indicated.

TRANSFUSION

In massive hemorrhage the problem is replacement to prevent or treat shock, and as all elements of blood are lost, no substitute for whole blood should be used. Shock here is due to loss of circulating whole blood volume out of the body and not like secondary shock, with a shift of liquid to the periphery resulting in an increased amount of red blood cells in concentration. Thus, in massive blood loss, with the red cells gone, replacement with plasma or fluids results in dilution, which may result in anoxia. If a 70 kilogram man with a blood volume of 6,300 cc. loses 2,100 cc., it is usually fatal. If he loses 1,000 to 1,500 cc., he is much in shock, and at least 1,000 cc. of blood should be replaced—not just 500 cc. because he improves with that. In a hypertensive patient, the physician should not be guided so much by blood pressure as by fast pulse, pallor, apprehension, unusual mental alacrity, and cool, clammy perspiration.

There has been much debate and overemphasis on the rate of transfusion, and most physicians have been told to transfuse very slowly to avoid raising the pressure and starting the patient to bleed again. I do not believe transfusion alone on the basis of the rate the blood is given elevates pressure. The only precaution as to speed is in the giving of the first 40 to 50 cc. to be certain the blood is compatible, but if urgency is dire enough, even this precaution may be dispensed with.

The antecubital fossa remains the choice site for transfusion, and if circumstances make that site undesirable, the femoral vein, sternum, or bulbous cavernosum may be used. Intra-arterial transfusion should not be necessary unless the patient is barely alive. In many dyscrasias to preserve platelets and other elements it is best to take the blood and give it immediately rather than to use bank blood. The indirect method of transfusion is preferable over the direct method as the latter is difficult and messy and has nothing specifically to warrant its use. In transfusing for all types of massive hemorrhage blood lost should be replaced first and after that in the defective clotting types small transfusions may be needed periodically as prophylactic and/or therapeutic measures.

DRUGS

There are many drugs which are used in the handling of cases of massive hemorrhage. Some of them already have been mentioned briefly.

Venoms such as cobra and Russell's viper venom are of no value.

Globulins, animal and human, are of no proved value. However, development of an antihemophiliac fraction is subject to further research.

Calcium is frequently given; however, a blood calcium deficient enough to result in bleeding is not compatible with life, and there is no evidence that calcium therapy is of any value. It is used randomly with great expectations. Some severe reactions have been reported from the use of calcium intravenously, and as a patient is never expendible, its use for hemostasis should be abandoned.

ACTH used in hemolytic anemia and some thrombocytopenic purpuras as a temporary measure has given good results. There are many questionable and varied reports of its value in leukemia and aplastic anemia. As a holding agent to protect the host with no curative idea in mind, it sometimes is effective in forestalling or delaying states of termination, particularly in aplastic anemia, to a point at which a spontaneous remission may be achieved if one is to be forthcoming.

Vitamin K oxide is the superior vitamin K preparation to be used. Simple vitamin K is not the answer to massive bleeding. Simple vitamin K, such as Synkayvite, may decrease the prothrombin time if it is somewhat lengthened. I would suggest first for the massive type of bleeding under consideration the use of whole blood and then vitamin K oxide.

Protamine sulfate and toluidine blue are new drugs of extreme value in the heparinoid states and in instances of over-heparinization mentioned before. They are direct antagonists to heparin and can be titrated out as such. This method is spoken of as the protamine titration. However, in the absence of this test being widely available and having good reason to suspect a heparinoid state in any one of the blood dyscrasias and definitely knowing that it is there in cases where heparin has been used, the physician may well use protamine sulfate in divided doses on a kilogram basis, the average divided dose being 50 to 125 mg. per injection.

CONCLUSION

For all types of acute massive blood loss underlying epistaxis, transfusion following local stasis is the treatment of choice. If blood is not available, plasma should be used as a temporary measure until blood is obtained. After this, attention should be directed to other measures effective in dealing with defective clotting.

———

South Texas Building.

EXPOSITION AS APPLIED TO MEDICINE

A Few Devices to Help Reader and Writer

RICHARD M. HEWITT, M.D., Rochester, Minnesota

IN a very helpful letter concerning the proposed contents of this article, Miss Harriet Cunningham listed what she called "some of the stumbling blocks in Texas." She was referring to medical writing, of course. My experience with that commodity is not confined to the far northern community where I now dwell but extends, by way of former work on the *Journal of the American Medical Association* and the National Research Council, throughout the length and breadth of the land. Anyone who read Miss Cunningham's list in the light of that experience would know that Texas is part of the United States. To be sure, if current anecdotes are factual, the state may insist that the United States is part of Texas. At all events, the imperfections which apparently are found in medical manuscripts in Texas are characteristic of such manuscripts in general. I shall try to cover the points which Miss Cunningham mentioned.

THE ENTIRE ESSAY

The physician's guild requires of him that he be qualified not only to practice but also to teach. Accordingly, if I were running a medical school, every student would read Ian Maclaren's *Beside the Bonnie Briar Bush*. Then each would become acquainted with the character of Dr. MacLure of Drumtochty and, equally profitably, with the mind of Elspeth MacFadyen. Following are her views on the tangled topics of a sermon:

> It's easy eneuch, ye see, for an auld hand tae manage ae set o' heads gin they come tae ten or a hundred, but it's another business when a man hes different sets in ae sermon.

Mr. Dugald Mactavish had four sets of heads, but Mrs. MacFadyen continued...

> and that's no a'; he didna feenish wi' ae set an' begin wi' the next, but if he didna mix them a' thegither. Fower set o' heads a' in a tangle....
>
> What possessed Maister Dugald ... a dinna ken, but aboot half nine—an' he begood at six—he sat oot upon the trumpets again, an' when he cudna get a haud o' them he says:
>
> "It will be getting dark" (the mune was fairly oot), "an' it is time we were considering our last head.
>
> "We will now study Satan in all his offices and characteristics"...
>
> ... tae be sittin' on peens for mair than twa oors tryin' tae get a grup o' a man's heads, an' him tae play hide-and-seek wi' ye, an' then tae begin on Satan at nine o'clock is mair nor flesh and bluid cud endure.

The Outline.—Aweel, if my quarter Scots blood may assert itself, Mr. Mactavish had been incoherent and prolix. If he had had an outline, or perhaps two of them, he would have known where to begin, he could have stayed on the track, and he would have perceived when to stop. Failure in these respects is fatal to the efforts of a preacher, teacher, or writer.

But why two outlines? The first, which consists of a list of the main heads, written in order on a sheet of paper, serves the same purpose as the small map of a large area. The situation of any major point on that map, with relation to any other point, is evident at a glance. The second outline is detailed. Preferably, in this outline, each thought, each illustration, and each reference is listed on a separate card. The outline is fluid; it is also freely expansile and contractile. Single cards or batches of cards can be moved or thrown away, and new cards can be inserted, up to the moment of writing. By that time the thinking all will have been done and the author need give attention only to the mechanics of expression.

Besides the advantages mentioned, in the card outline related thoughts fall together and thus the author is guarded against writing the same thing twice. Except in the summary, which will be dealt with later, there seldom is any warrant for saying again what once has been said.

Parallel Construction.—There may be very good reason, on the other hand, for saying different things in the same way. This is the strong device of parallel construction, whereby similar or contrasting material is presented in the manner which the author has used before and to which his reader has become accustomed. Thus, in a single volume on internal medicine, the topics concerning each disease are likely

From the Section of Publications, Mayo Clinic.

to be taken up in the same order. To illustrate this principle as it can be applied more particularly to the short essay would take too much space. Before this short essay ends, nevertheless, the subject will turn up again.

The Point of View.—Another device by which the author can make evident to his reader that his presentation is coherent is to establish a point of view and remain faithful to it. If he starts with a consideration of 107 patients, and then shifts without warning to consideration of 134 examinations to which the 107 patients were subjected, he will confuse his reader. At the moment I have in mind an instance of this sort found by Dr. James Eckman. The situation is not improved if the author cross-divides between two categories such as have been mentioned to derive a percentage which lies within only one of them. Failure to establish a point of view may lead, then, to what I think of as the "verbal-arithmetical muddle." The error usually is not entirely in arithmetic but partly in inexact thinking, and often it is not detected by the reader who runs. But the reader who teases apart the intertwined verbal and arithmetical fibers discovers the mistake and he likes it not.

Transitions.—What has been written thus far leads to a related matter; namely, care to make evident the transitions in thought. In a scientific article, major changes in direction often can be indicated by use of headings. Careful use of transitional expressions, however, helps the reader to follow even minor turns of the author's mind. In its relation to a preceding thought, a following one may be in agreement, amplification, qualification, or contradiction. I have come to think of the former two as "and" sequences and of the latter two as "but" sequences. Often the insertion of "and" or "but," or of a word of similar force, is enough to give the reader a hint of how the author's thought changed direction at a given point. Sometimes, the transitional device must be more elaborate: a phrase, a clause, a sentence, even a paragraph. At all events, notwithstanding the main occupation in many of the vast regions where this journal is primarily circulated, I hope it will not be too ambiguous to advocate that the reader, in some manner, be given a steer.

Horace on Coherence.—Necessarily the foregoing is incomplete but the purpose of it, I hope, has been clear; namely, to note a few devices whereby the reader can be apprised of the arrangement of the author's thought. Wrote Horace:

> Herein, lies the beauty and charm of arrangement, if I mistake not, that what should be said now is said now, that many points are postponed and omitted for the moment.

Horace had what Maister Mactavish lacked.

THE PARAGRAPH

As has been suggested, it is well to subdivide a scientific paper into sections, each under a heading. Such devices are helpful but the great writers of the familiar essay did not need them. Their mastery of their art was such that the first subdivision they required was the paragraph. Properly built, paragraphs are a further aid to coherence of the whole. Today, however, the paragraph, perhaps influenced by the current style in business correspondence, is tending to become only a typographical division. Frequently, a letter of one page consists of several paragraphs each of which, in turn, is composed of a single sentence. The genuinely useful paragraph, however, is a structural division, a little essay in itself.

The easiest way to build a paragraph is to write a so-called topic sentence, which tells what the paragraph is about. Each succeeding sentence amplifies or elucidates this topic sentence and each sentence bears an evident transitional relationship to the one before or after it. Finally, the paragraph ends in such a way that the reader knows that the author has finished with that subject or division of the subject.

Some of what has just been writen is evident in a paragraph from a review[2] of the standard book on medical writing which was prepared by my former chief, Dr. Morris Fishbein, and one of his assistants, Miss Jewel Whelan. The italics were not in the original but are used here to indicate transitional expressions.

> The work is a style book, *as has been said,** but so far is the craft of the physician removed from that of the editor that perhaps not all members of the medical profession know the purpose of a style book. *Such a volume*† is the manual used, in a publishing house, by the manuscript editors. *Their duty* is not to rewrite a manuscript, even though they may be tempted and qualified to do so. The *paper*‡ is the author's, not the editor's, and it should retain as much of the author's mode of expression as is consistent with clearness, reasonably good general form, good taste, and correctness of sentence structure and diction. *Yet* experience in any publishing house establishes certain practices, expressions and spellings as preferable to others, and both experience and mechanical equipment dictate the manner in which text, illustrations, tables, headings, captions, legends and bibliographic references shall appear in print. Years of experience have demonstrated that in the publications of *any house*§ considerable uniformity in these matters is desirable. To maintain *such uniformity*, a style book is essential.

And now, while the subject is the paragraph, is a good time to consider one element of the medical article which often consists of a single paragraph. This is the summary, to which reference previously was made. The formal summary, labeled as such, is a good device in a field of printed matter which confesses to something like 7,000 journals. The summary helps

*Links the whole paragraph with an earlier part of the review.
†Refers to "style book" in preceding sentence.
‡Refers to "manuscript" in preceding sentence.
§Refers to "publishing house" in preceding sentence.

the reader, the abstracter, the indexer, and, perhaps, the author. But it should summarize. To furnish a table of contents is not helpful. Following is an informative summary:

Tracheal tumors do not occur commonly. They are usually found in examination of men who are between 40 and 70 years of age. These tumors usually involve the lateral walls of the lower third of the trachea. The symptoms generally are cough, hemoptysis, dyspnea, and wheezing. Routine thoracic roentgenograms often give no evidence of tumor. Tomograms frequently are necessary to demonstrate these tumors roentgenographically. Tracheal tumors are best diagnosed by bronchoscopy. The most common types are squamous cell carcinoma, cylindroma, adenocarcinoma, and hemangio-endothelioma. Cylindromas of the trachea tend to grow slowly and to metastasize late, and thus constitute the type of tracheal tumor that is most favorable for surgical resection. Extensive experimental studies have resulted in the development of technics that permit surgical resection of some tracheal tumors. Four cases in which the tumor was surgically resected are reported herewith. Three of the tumors were cylindromas and 1 was a squamous cell carcinoma. One patient died of bronchopneumonia six days after operation and 1 died two years after operation for local recurrence and extensive pulmonary metastasis. One patient was alive and well eleven months after operation and 1 was alive and well one year after operation.

If that had been written in the manner which unaccountably seems to be gaining favor, it would not have been much more enlightening than the title. It might have read like this:

The frequency of tracheal tumors and their distribution by age and sex are presented. Symptoms and other means of diagnosis are discussed. Pathologic characteristics are described. The development of surgical methods of treatment is recounted. Four cases in which operation was performed are reported.

THE SENTENCE

Telegraphese.—A sentence used to be "a complete thought expressed in words." Now it often is an incomplete thought partly expressed between an initial capital letter and a period. The fault with such a construction is not that it violates an old definition but that its meaning often is unclear. It is the "telegraphese" into which the physician sometimes is led when, in writing a report of a case, he surrenders all to brevity.

Verbosity.—Not that brevity is undesirable, of course; it is highly desirable as long as clearness is not sacrificed for it. In the following few sentences brevity was achieved by eliminating the verbosity of "medicalese." This term, I presume, is permissible as the counterpart of the word "officialese" which has been at least partly accepted by Sir Ernest Gowers.

Medicalese: This group includes those patients in whom the onset of cough was before 6 months of age. In this series, the onset of cough was said to be present at or shortly after birth in 14 patients. (37 words)

Comment: The explanation of this may be that the writer had become accustomed to certain expressions and drifted into circumlocution to include them; for instance, "in whom," "the onset of," "be present," "in patients." In remedy, the substantive expression "onset of cough" becomes the verbal expression "began to cough."

Simplified: This group includes patients who began to cough before they were 6 months old. The coughing of 14 of our infants started at birth or shortly thereafter. (27 words)

Medicalese: There was formed an intracellular deposition of black granules in the melanoblasts of the basal layer of the skin. (19 words)

Comment: The fault and the remedy are similar to those of the previous example. "Intracellular deposition" is a good stock expression in its place. Here, however, where it is said that the deposits were in melanoblasts, use of the word "intracellular" is tautologous.

Simplified: Black granules were deposited in the melanoblasts of the basal layer of the skin. (14 words)

Medicalese: Retention of water occurred in the starved individual. (8 words)

Comment: Attraction to the stock expressions "retention of water" and "in the individual," I believe led to the verbosity here. In remedy, the noun "retention" becomes the verb "retained."

Simplified: The starved individual retained water. (5 words)

Medicalese: They were negative on three occasions for the presence of malignant cells. One sample contained acid-fast bacilli on direct smear, but a second collection was reported as negative for acid-fast bacilli microscopically after concentration. (36 words)

Comment: Even a good writer, such as this one, tends to twist sentences out of simple English in order to use the recurrent expression "negative for." Not many words are saved in the revision but the expression is more direct.

Simplified: On three occasions malignant cells were not seen. A direct smear from one sample contained acid-fast bacilli but, after concentration of a second collection, acid-fast bacilli were not found. (31 words)

Edith Hamilton has pointed out a contrast in method between the concise Greek way and the embellished Hebraic or English way. She wrote:

The same difference ... is marked ... where the wicked man is shown praying to deaf ears. In the Bible it runs:

"When distress and anguish cometh then shall they call upon me but I will not answer; then they shall seek me but they shall not find me."

The Greek expresses the bare idea, not a word more:

"And does he pray, no one hears."

Which of the above is preferable? That depends, I think, on whether the reader, at the moment, wishes to read the English Bible in all its florid vigor or Greek tragedy in its spare strength. Both are excellent.

Length of Sentence.—A long sentence is not bad if it does what it was designed to do. If it is constructed by a master, such as Prescott was, it may be entirely clear:

Of all that extensive empire which once acknowledged the authority of Spain in the New World, no portion, for interest and importance, can be compared with Mexico;—and this equally, whether we consider the variety of its soil and climate; the inexhaustible stores of its mineral wealth;

its scenery, grand and picturesque beyond example, the character of its ancient inhabitants, not only far surpassing in intelligence that of the other North American races, but reminding us, by their monuments, of the primitive civilization of Egypt and Hindostan; or lastly, the peculiar circumstances of its Conquest, adventurous and romantic as any legend devised by Norman or Italian bard of chivalry.

That long sentence is admirable but the next one, not written by a master, is abominable:

Interminable: Before the man had entered the army he had worked in an asbestos mine and even then he had been troubled by a cough, all of which threw doubt on the question of his pulmonary condition being service connected but, in any event, he had been inducted, had served both in this country and in Europe for three years and was entitled to sanatorium care, for which reason the medical officer in charge made arrangements for his transfer.

Comment: This is not the close-knit amplification of a single idea, such as Prescott composed, but a gangling linkage of tenuously related ideas.

Broken up: In civil life the man had worked in an asbestos mine and even then he had been troubled by a cough. There existed a question, therefore, as to whether his pulmonary condition had been acquired before or after he had entered the army. In any event, he had served in this country and abroad for a total of three years. His right to care in a sanatorium was unquestioned and the medical officer in charge arranged for the patient's transfer.

At the risk of being accused of having offered insufficient evidence for it, I am going to express a principle. It is that in the hands of writers of belles-lettres, among whom the masters of expression are likely to be found, the long sentence may be a safe device; on the other hand, writers of scientific material, whose mastery generally lies in another field than writing, usually will find the short sentence more suitable to their purposes.

Antecedents.—Not long ago was printed a cartoon of a woman who is saying this over the telephone:[13]

My husband's in agony. It's his head. He's had it on and off all day. Right now he's holding it in his hands between his knees.

Doubtless her agitation was responsible for the confusing use of pronouns and their antecedents. There is no such excuse, however, for the physician who uses "we" in different senses in the same paper, without furnishing an antecedent in any instance.

Sometimes the order of words in a sentence is such that a pronoun seems structurally to refer to the wrong one of two nouns. Even though the sense is clear, the structure is inexpert. A simple device meets this difficulty.

Inexact: He attempted to determine the effect of microwaves on the temperature of tissues of which the blood supply was normal, as compared with their effect on the temperature of ischemic tissue.

Comment: The custom is to consider that the antecedent of a pronoun is the last preceding noun with which the pronoun is grammatically in accord. In this instance, the pronoun "their" is plural and the last preceding noun to which grammatically it can refer is "tissues." That, however, makes nonsense. In such a situation, I often change the number of one of the nouns so that sense and grammar agree. "Tissues," here, becomes "tissue"; then "their" can refer only to "microwaves."

Remedied: He attempted to determine the effect of microwaves on the temperature of tissue of which the blood supply was normal, as compared with their effect on the temperature of ischemic tissue.

Nouns Modifying Nouns.—If English were still inflected, which thank goodness it is not, it would not be as necessary, as now it is, to be careful of the order of words in sentences. The inflections would tell the reader which words were modifiers of other words. Considering the way English has developed, however, the interrelationship of the final words of a sentence found by Miss Katharine Smith was not sufficiently clear:

Unclear: the high cervical cord tumor suspect patient.

Comment: The last four words are all nouns; which modifies which?

Probable meaning: the patient suspected of having a tumor high in the cervical portion of the spinal cord.

The latter expression is more than twice as long as the former one. That is regrettable. The writer's duty, nevertheless, is so to express himself that his reader instantly knows which words are modified and which are modifiers. If adjectives are not available, he must use adjectival phrases and disregard the expense in words.

Adjective Used When Adverb Needed.—In the following sentence the verb, not the noun, needs the modifier.

Faulty: Simultaneous samples of arterial and venous blood were collected.

Comment: Not the samples but the collecting was simultaneous.

Remedied: Samples of arterial and of venous blood were collected simultaneously.

Colloquial: The disease is more severe among heavy smokers than among light smokers.

Comment: American readers will know that this sentence has nothing to do with the weight of the smokers. A foreigner, however, may not perceive that adjectives which clearly modify a repeated noun are to be understood to be adverbs modifying a repeated verb that is not there.

Partly remedied: The disease is more severe among those who smoke heavily than among those who smoke lightly.

Comment: Here the adverbs and the verb both appear but the idea of weight persists.

Fully remedied: The disease is more severe among those who smoke much than among those who smoke little.

Modifier Attached to Wrong Word.—In the following example, the incorrect expression is only one word shorter than the correct one:

Bad: Eleven fasting vitamin A determinations were made on 8 patients.

Comment: Not the vitamins or the determinations, but the patients, were fasting.

Remedied: Eleven determinations of vitamin A were made on 8 fasting patients.

Negative Attached to Noun Rather Than to Verb.—Such expressions as "no bacteria were found" are idiomatic English but the idiom is explosive in the hands of a careless writer. Dr. John R. Miner found the following:

Wrong: The patient complains of no distress.

Remedied: The patient does not complain of distress.

Parallel Construction.—Of the various principles which are applicable both to the entire essay and to the sentence, I shall mention only parallel construction. This striking device was advocated by the ancients and is used by modern masters. Yet those who write only occasionally often fear to employ it because its use entails repetition. Yet repetition used for the sake of parallelism may be a strong device, as Demetrius knew:

Clear writing must avoid ambiguity; it should adopt a figure known as "epanalepsis" or repetition. Epanalepsis consists of repeating the same conjunction in the course of a long passage, for example: "All the deeds that Philip did, and how he subdued Thrace and took the Chersonese and besieged Byzantium, and refused to restore Amphipolis—this ... will pass over." The repetition of the conjunction goes a long way to remind us of the opening, and recalls us back to the beginning of the paragraph.

Likewise, repetition of a preposition recurrently recalls to the reader the original construction and keeps the material clear. William Hazlitt wrote this:

He inclines, by a natural and deliberate bias, to the traditional in laws and government; to the orthodox in religion; to the safe in opinion; to the trite in imagination; to the technical in style; to whatever implies surrender of individual judgment into the hands of authority, and a subjection of individual feeling to mechanic rules.

Hazlitt did not like that man one iota. Read the passage without repeating the prepositions and note what is lost.

WORDS

Recently, in another paper, I devoted some space to the subject of words and included a list of them which frequently are misused in medical material. Here, I would like to plead for simplicity when exact expression is not sacrificed for it. Few physicians would wish to go as far in showing their contempt for "college names" as a surgeon of standing whom I once knew. When he needed a suture he would call for a "string" and instead of a sponge he demanded a "rag." He professed not to know the name of any instrument but would say, "Give me that long, heavy thing over there." It will be generally admitted, however, that "deglutition" seldom offers anything that "swallowing" does not and that the combining form "dolicho," as sometimes employed, is only a pompous way of saying "long."

Indeed, a moment taken to recall, or to learn, the ancient meaning of a word from which a presently used technical one is derived may result not only in simplicity but also may eliminate tautology such as the following:

tumor mass, neurogenic origin, renal function of the remaining kidney, therapeutic treatment, empirical experience.

Expressions of that sort remind me of a window in my old home town on which were painted the words: "Tonsorial Barber Shop" and I have come to think of expressions such as those just listed as examples of the "tonsorial barber shop construction." To detect tautology in the following does not require attention to etymology:

150 pounds in weight, young patient 18 years of age, grayish-white in color.

INCLUSIONS, OMISSIONS, AND BOOKS

Now, I have written something on most of the subjects which Miss Cunningham mentioned and on a few others. I have omitted much, necessarily, most of which the writer can find in reference books. There is a host of them and many of the best of them have naught to do with medicine. For, actually, there is no such thing as medical writing. The art of exposition, once learned, can be applied to medicine, business, engineering, and what not.

Far and away ahead of all other works in value to me have been the English dictionaries and the medical dictionaries. I have enjoyed, and have profited from, reading Demetrius; not much is new under the expositor's sun. Dr. Fishbein's book was mentioned earlier. Mrs. Maud H. Mellish-Wilson also prepared an excellent, practical book on exposition as applied to medicine, but unfortunately, it is out of print. More recent books in the same category are by Thomas and by Jordan and Shepard. I was interested, a few days ago, to notice that in the bibliography to J. W. Howie's article on medical writing appeared a reference to the old standby, Allbutt. Another old great one is Quiller-Couch. *The Secretary's Handbook*[17] comes often into use. In addition, a number of authors have written about their art, many of them delightfully. I doubt if anyone knows how many textbooks of grammar or of composition and rhetoric have been published for use in high school or college. I never have had one which I was willing to throw away. Nearly every major publisher, moreover, has a style book of some kind which can be obtained on inquiry and several of these books are on the market.

All of these are aids. Facility in writing, however, is developed not by reading books about the craft but by writing. By the time a physician has anything to write, unfortunately, he has little time for practicing

the art of writing. Accordingly, I have recommended to several physicians that day by day they write every incidental note or letter or history as well as they can and, when possible, that they have these notes and other efforts criticized by a competent person. Such a scheme should be a fair substitute for the daily stint of writing whereby, whether in school or at work, writers are made. A year of such effort should show its effects. Then, when the next demand to write a paper comes along, the task can be faced with diminished sighing.

TESTS

And finally, when the paper is done, the author can apply to it certain questions by which he can test whether, in some respects, his effort has been successful:

1. Is the paper so built that an inclusive, coherent outline of it, consisting of main topics and subtopics, can be written? If the answer to this question is affirmative, the entire essay probably is well constructed.

2. Can a single topic sentence be composed for each paragraph? An affirmative answer to this question is fairly good assurance that the paragraphs are basically sound.

3. Could a foreigner, whose knowledge of English was academic and not colloquial, translate every sentence of the essay? If he could, the sentence structure and the diction probably are more than acceptable.

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Rehabilitation of Handicapped Inadequate

Each year 250,000 persons in the United States become crippled or otherwise handicapped, and there is a backlog of 2,000,000 persons who could be rehabilitated. Because the situation is not corrected the victims and the nation suffer annual wage losses of several billion dollars. These and other facts have been released by the Task Force on the Handicapped, an eleven member group (including four physicians) which studied the problem for eight months at the request of the Office of Defense Mobilization, reports the March 15 issue of *Modern Medicine*.

The Task Force found shortages among almost all the professional personnel needed for rehabilitation and inadequate or nonexistent facilities. Although there is ready acceptance of the fact that rehabilitation pays for itself, insufficient funds are voted to carry on rehabilitation programs.

Poor use of potential services, especially at the local level, was observed by the Task Force, and overcrowded facilities indicated the need for additional funds for rehabilitation centers.

On the national level the Task Force proposed that the program for rehabilitation be stepped up, especially that government departments be required to cooperate in the work of the President's Committee on Employ the Physically Handicapped Week, that a national campaign to recruit more students for careers in rehabilitation be undertaken, and that grants be made available through the U. S. Public Health Service to aid graduate students in rehabilitation.

POLIOMYELITIS DECREASED IN 1951

An appreciable decrease in the incidence of poliomyelitis was evident in a number of countries during 1951, the World Health Organization reports. In the United States, cases reported were 14 per cent less than in 1950 and 32 per cent less than in 1949. Improvements were noted in the United Kingdom and Israel, and also in Europe with the exception of Italy, Norway, Holland, and Switzerland. At the same time, there was an aggravation of the situation in Australia and the Belgian Congo, and to a lesser extent in Canada, Mexico, and Japan.

FACE-HAND TEST DIAGNOSTIC OF MENTAL DISORDER

Patients unable to perceive a touch on one cheek and on the opposite hand at the same time may have a severe organic mental disorder, according to Drs. Max Fink, Martin Green, and Morris B. Bender. Writing in a recent issue of *Neurology*, the doctors report the results of the test on 400 inmates of Bellevue Psychiatric Hospital, New York, schizophrenic adults, and healthy adults and children.

Most healthy adults and adults with purely psychologic disorders whose opposite cheek and hand are touched when their eyes are closed are able to identify the touches at least toward the end of a series of ten trials. Adults with brain lesions in about 90 per cent of cases make errors in the test, usually recognizing only a touch on the cheek.

VISUALIZING PROBLEMS IN MEDICINE

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ANY word description of disease can be truly aided by an accurately made picture, whether it be a drawing, photograph, radiograph, chart, diagram, or model. It matters not whether one thinks in terms of words or of visual images; the main desire is to gain, by either method, all the medical information possible in the shortest time consistent with accuracy of comprehension. There have been raised many academic questions as to how best to obtain and retain information without the expenditure of an excess amount of energy, the methods usually discussed being word description and illustrative pictorialism. I offer the latter as the least laborious route to complete understanding.

There should not be a competitive approach to the use of these two methods, since one usually aids the other and a combination of the best of the two may more nearly attain perfection in medical presentation. Pictures describe things as they are without the use of conscious effort on the viewer's part, perception being limited only by the quality of information he has gained from previous experiences, both verbal and pictorial.

To use visual language for the communication of concrete medical messages, one should understand the great variety of spatial sensations inherent in related forces of line, shape, color value, and texture, which act upon the picture surface. He must know how to use these elements to convey the thought under consideration and to give a graphic portrayal enriched from the storehouse of accumulated experiences in both art application and medical knowledge. This storing up of experiences is an important factor in visual interpretation.

If one imagines a picture of a brick building, these accumulated experiences are the bricks, and the related forces (actually the techniques of production) are responsible for the way that the bricks (forces) are put together. A surgical drawing likewise should convey the relationship of past experiences (anatomy, physiology, surgical procedure, pathology, and results from other similar procedures) to present portrayal.

In the English language there are twenty-six elementary characters, and it is only by rearrangement of these characters that one is able to express verbally the knowledge of the English-speaking world. Even here grammatical rules, usage, and vocabulary are limiting factors. By comparison the number of signs, characters, and forces that enter into the language of vision is prodigious. The medical illustrator in putting together these signs and forces for the most effective understanding is restricted only by the experience of the observer. The language of vision, unlike the spoken or written language, is not bound by races, centuries, or geographic boundaries but is a perpetuation of the accumulated experiences of the world for all to understand.

When properly used, visual communication is one of the strongest potential means to unite man and his knowledge and to re-form him into an integrated being. Medical teachers must understand this process of communication, since the overwhelming increase in human knowledge is necessitating the adaptation of many newer means for dispensing information to an ever increasing number of students, physicians, and others interested in medical education.

The invention and perfection of television has not supplanted any former techniques; it is simply a major addition to the armamentarium of teaching. All the former methods of visual techniques—drawing, animation, photography, motion pictures—will be incorporated in television broadcast programs. For every new device for seeing there must still be creators of something to see.

The preceding paragraphs offer a basis for understanding the most accepted methods of production and the means by which the many different complexities involved in presenting medical knowledge are visualized. To achieve the most effective results, all methods of producing pictures should be used. Whether illustration is by drawing or photography makes little difference if the end result is convincing and contains the information desired. There are many different methods of producing a medical drawing, which, when properly executed, is the most convincing form of visual delineation.

FORMS OF MEDICAL ART

Photography, especially color photography, when properly applied to visualizing medicine, should be held in the same wholesome respect as drawing. There are as many classifications of photography as there are types of drawing. In medical illustrations, the best results are obtained when photography is used as an art process the same as any other delineation procedure. It can be regarded as an art process only when it is used by one whose main interest is in applying the sound principles of art and scientific facts to visual interpretation.

When the medical problem is pictured in color, the viewer is not forced to convert mentally the black

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FIG. 1. Reproduction from a color print process, "Glioblastoma of the Pons."

and white tonal ranges into color images. The medical photograph in color, usually a transparency, used as a lantern slide is one of the quickest and most readily absorbed forms of visual interpretation yet devised. It is unfortunate that the cost of reproducing color pictures by the photoengraving process is process of converting silver halide images into the three primary colors for obtaining color photographic prints.

Color photography, like color television, when invented was the end result of many years of striving for color pictures. To medicine, to surgery, to pathology, the perfection of color photography meant that for the first time the appearance of disease condi-

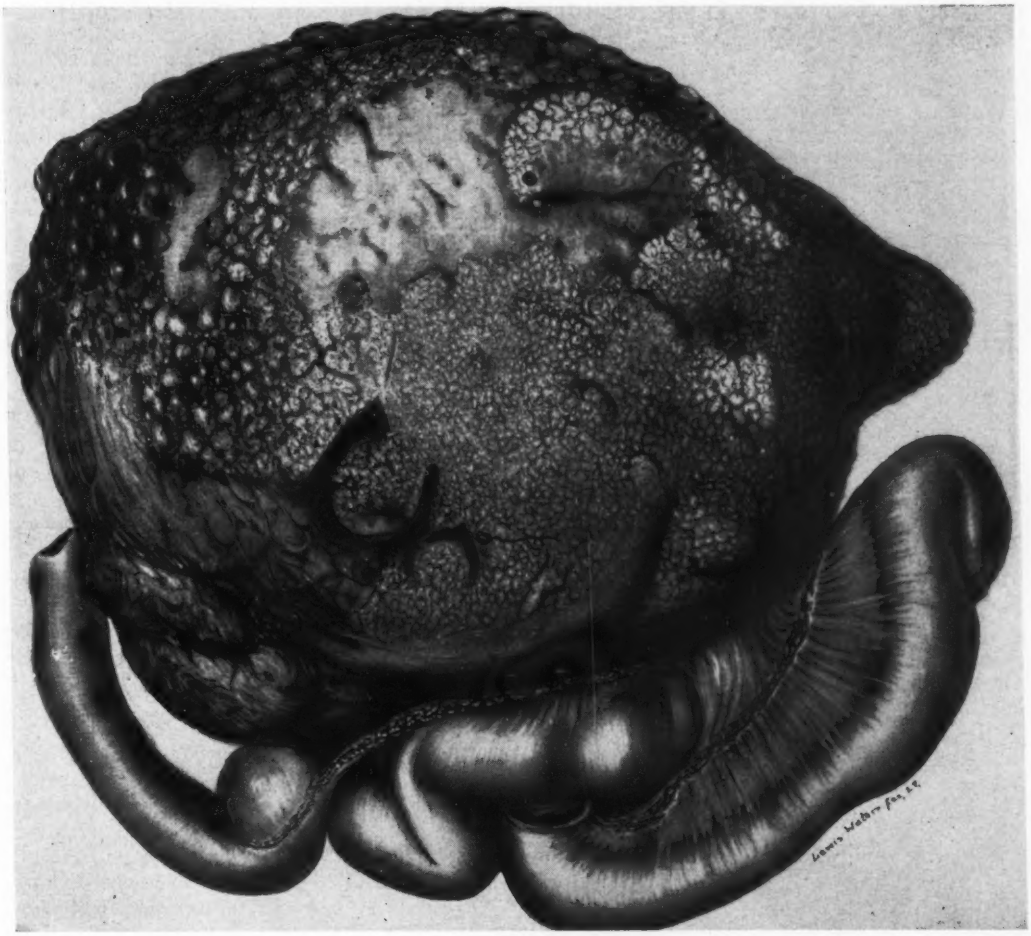

FIG. 2. Original drawing by Lewis Waters. "Mesenteric lymphangioma."

so expensive because the use of color in medical publications certainly would advance the cause of learning by visual means. The illustration reproduced in figure 1 is from a color print process which I invented. This color process was perfected in 1933—before other processes had been worked out—and although it is a somewhat "hand tooled" process, it is still the cheapest method for obtaining color photographic prints. It was the first method that used the tions could be reproduced, published, and broadcast with ease and facility previously unknown.

Figure 2 represents the ultimate in draftsmanship in that it rearranges some parts for a better understanding, yet in other areas is an exactly drawn presentation. It could properly be called the "ideal" type. This type of drawing must have a range of tone, a geometric quality, and an optical environment which will confine attention to the narrow picture area yet

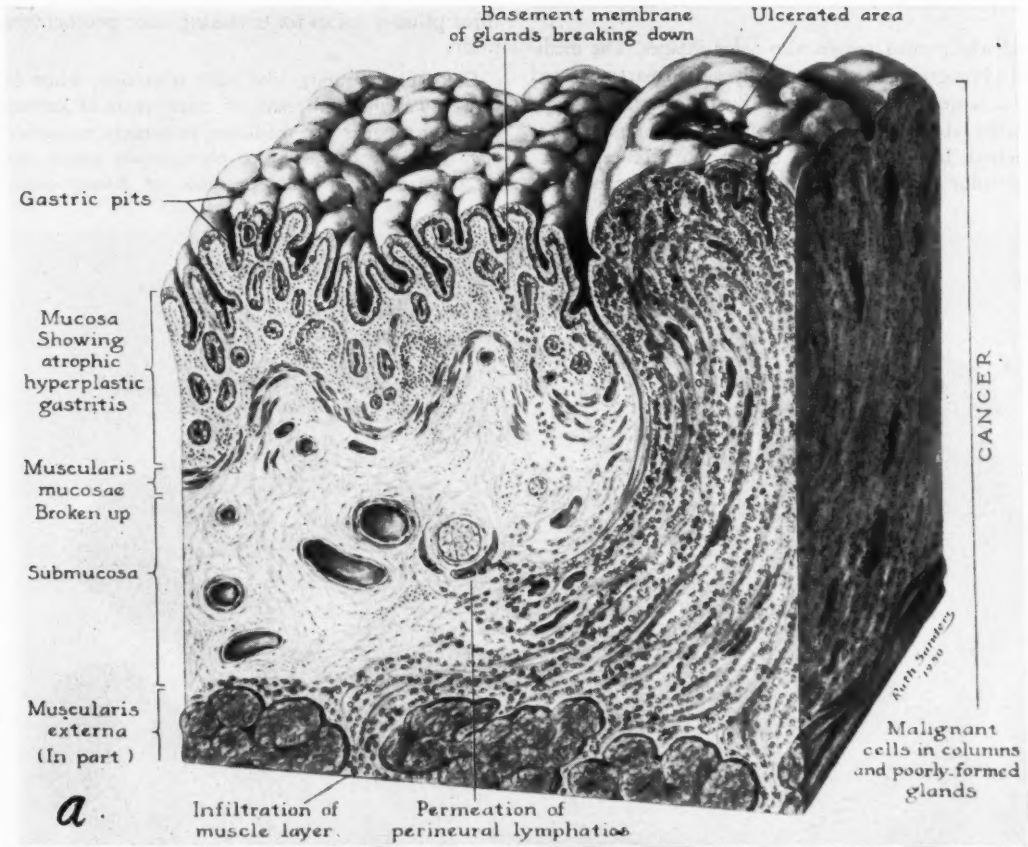

FIG. 3a. Three dimensional drawing by Ruth Sanders. "Infiltrating adenocarcinoma of the stomach."

b. Photomicrograph by Patricia O'Neill. "Adenocarcinoma of the breast." x 1,500

give an understanding of the over-all relationship in such a manner that the idea of the whole is presented, even though it is not shown. This, no camera can do. This type of medical illustration presupposes a vast amount of previous study of medical subjects and an accumulation of experiences. It cannot come out of the idea in which artistic development overbalances the science of the study and treatment of disease. Any attempt at displaying beauty with a corresponding neglect of the real has no place in presenting medical thought. Neither should medical and scientific facts overpower the most readily absorbed form of presentation. Medical artists must rely on lengthy and sound artistic training combined with an equal amount of study and understanding of medical and scientific facts.

In figure 3a is presented an example of three dimensional drawing, which is considered the most useful type of pictorial architecture. Although it is considerably more difficult to accomplish than two dimensional effects, the greater knowledge gained by the viewer is worth more than the time and effort expended by the artist. By this method the viewer is not left detached in space as he sometimes is forced to be in two dimensional pictures. In seeing the two dimensional drawing the viewer experiences the feeling of space because he unconsciously attempts to organize the articulated dimensions as a whole, without attaching any real significance to the optical qualities and measures supporting this detached mass. The three dimensional drawing has real as well as apparent depth, with a base, height, and appearance of belonging to the whole of which it has been a part. The structure of the tissue "block" shown in figure 3a is at once apparent, and the relationship of the invasive cancer to the entire organ can be understood immediately.

Photomicrography, correlated with the invention and development of the microscope, throughout the years has been a valuable visual aid in teaching biology, medicine, and related sciences. The photographic record of images viewed through the microscope was a distinct advancement in preserving for further study the appearance of pathologic, biologic, and bacteriologic specimens (fig. 3b). The invention and perfection of the electron and phase microscopes offer some new and outstanding advantages for photomicrography over the standard microscope. The "electron" may give magnifications of several thousand times,

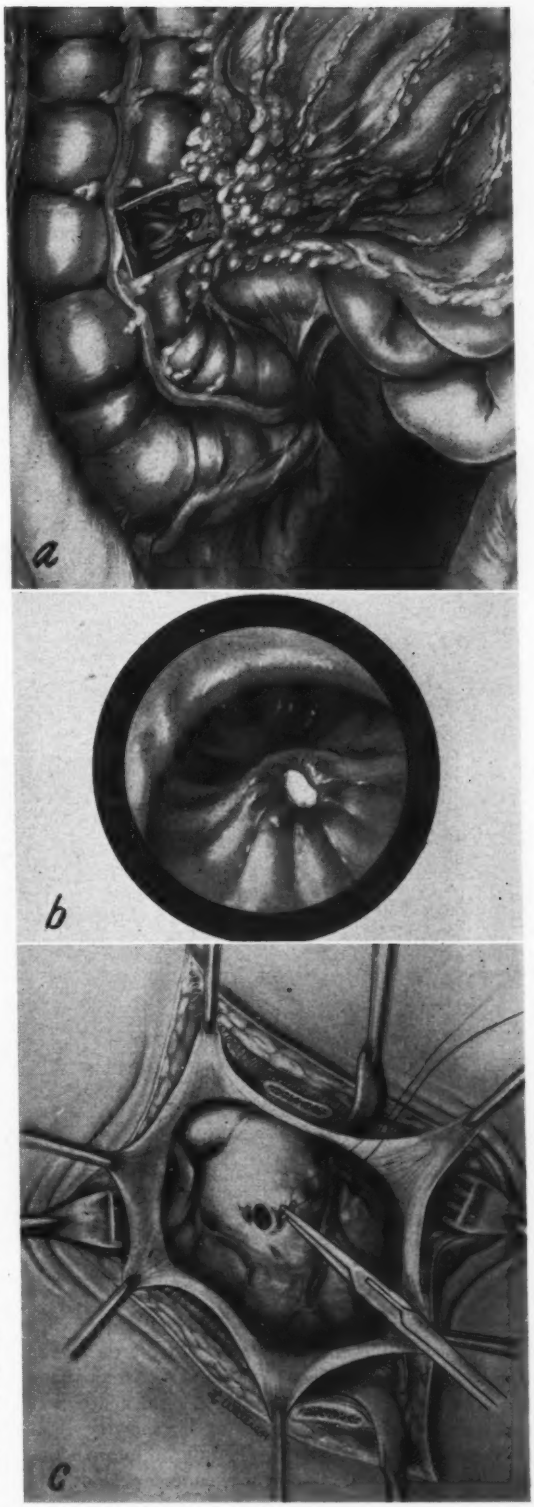

FIG. 4a. Realistic schematic drawing by Lewis Waters. "Simple penetrating ulcer of the cecum." [After Rosser, C.: Benign Surgical Lesions of Right Colon, J.A.M.A. *127*:568-571 (March 10) 1945.]

b. Original drawing in color by Ruth Sanders. "Gastroscopic view of carcinoma of the antrum."

c. Drawing by Lewis Waters. "Surgical procedure in repairing a bullet wound of the heart." (After Donaldson, J. K.: Surgical Disorders of the Chest; Diagnosis and Treatment, Philadelphia, Lea and Febiger, 1944.)

and the "phase" enables pictures to be made of living and unstained tissues at regular magnifications.

The realistic-schematic drawing probably requires more knowledge of surgical anatomy than any other pictorial method. In figure 4a is presented in one picture the studies that confirmed the diagnosis "simple penetrating ulcer of the cecum."[2] A preliminary sketch at celiotomy was made not to show the surgical technique but to appraise visually the condition found by the surgeon. The window demonstrates the area and type of ulceration; the thickened wall and the omental attachments also are shown.

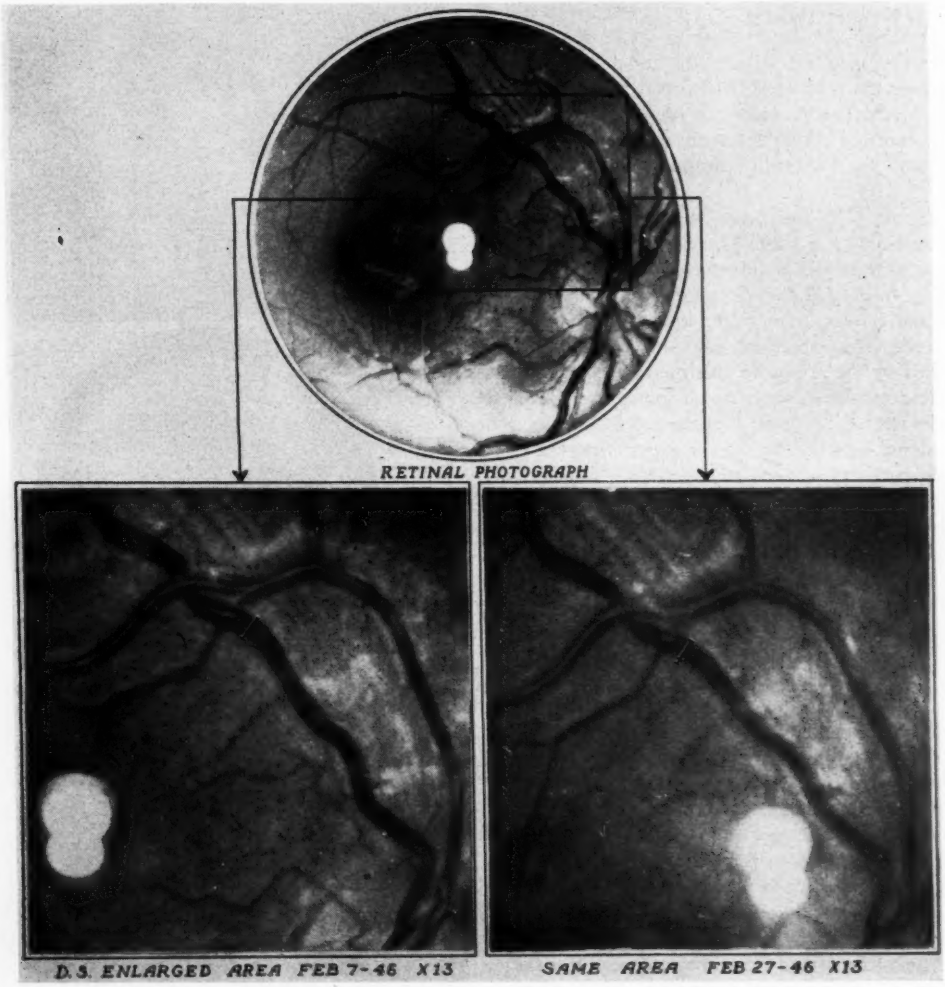

FIG. 5. Composite retinal photograph by Lewis Waters. "Visualizing changes in the dimensions of retinal vessels in hypertension."

A great contribution to the study of internal disease has been the development of endoscopic methods. Gastroscopy is one of these methods which is constantly gaining in significance. Paralleling the importance of the gastroscopic examination is the importance of recording accurately the gastroscopic view. Although much progress is being made in gastrophotography, a good color drawing made directly at examination is still the preferred method. The medical artist with his combined knowledge of anatomy and rendering of art can record the fine detail and the minute color changes and give a depth of field impossible to attain by any other presently known method. Figure 4b, although not in color, suggests the detail possible by drawing.

Figure 4c could properly be called emergency medical drawing. This is the type that comes unexpectedly; for example, a call comes from surgery late at night

and a sketch has to be made on any kind of paper with a pen or pencil and completed later. It is emphasized that the sketch is made without specific preparation and that the faithful rendition comes from much advance learning and study and not entirely from the sketch made at the time of the emergency operation.

In the nineteenth century color drawings of the fundus oculi were the only means of recording pathologic conditions of the inner eye for teaching and publication. Many attempts were made to photograph the retina, some as early as 1862. Nordenson of Sweden in 1915 made the first successful retinal photograph. Since that time there have been many improvements in the equipment and its uses. Figure 5 shows how such pictures may be made more valuable. For example, actual measurements of the dimensions of blood vessels may be determined as in hypertension.

Radiography, made possible through the discovery of x-rays by Roentgen in 1895, has caused more disease conditions to be visualized than any other single discovery. The early radiographs were useful only in observing bone structure, malformations, or fractures. However, throughout the years many improvements in equipment, techniques, and the specialized study of radiography have resulted in perfected methods by which many diseases of soft tissues also can be confirmed. The visualization of the large pedunculated polyp in the descending colon (fig. 6) is an excellent example of the striving for better views of disease conditions leading to more accurate diagnosis.

EDUCATING THE MEDICAL ILLUSTRATOR

It is inconceivable to think of a vast field of endeavor, such as visualizing problems in medicine, without helping to plan for the proper education of persons who can carry on the work in a manner creditable to themselves, their institutions, and the medical and allied professions. If full advantage of the talents of the people who wish to follow this profession is to be obtained, at least five years of college work should be required of them. It is unthinkable that preparation should not offer compensating degrees which will establish medical illustrators in a profession with the same standards as those maintained in other specialized branches of medical education. I believe that setting high educational requirements is the only way to raise the status of the people now entering this field, with a corresponding elevation in remuneration.

To my knowledge there has not been offered heretofore a comprehensive course combining the study of preclinical medical science, art, and photography for the most effective production of visual material. In view of this deficiency The Southwestern Medical School of the University of Texas has planned and is offering a course of study encompassing the whole field of visual education in medicine and leading to the degree of master of medical art.

In planning this course we not only had in mind what we wished to accomplish but also what seemed to be most desired by a great number of other institutions and persons. It is our opinion that students who contemplate entering the medical illustration field should complete at least three years of academic college work, including as much as two years of art, English, a foreign language, biology, physics, and chemistry. After entering our institution they should learn the various drawing techniques as applied to medical subjects, and complete the following preclinical subjects in the regular medical curriculum: anatomy, histology, physiology, and pathology with their application in art. The final course of study should include advanced drawing, optics, photographic chemistry, photography, photomicrography, motion picture techniques and sound recording, the preparation of scientific exhibits and designing of displays, the study of moulage and plastic prosthesis, and the proper preparation of illustrative material for publication.

FIG. 6. Radiograph copied by Robert Sage from a roentgenogram. "A large pedunculated polyp in the descending colon. (Courtesy of Dr. Charles L. Martin and Dr. Curtice Rosser, Dallas.)

CONCLUSION

To visualize medical problems requires the sincere and continuous effort of a great number of persons.

There is not a medical subject that does not lend itself well to visual interpretation, either by modern photographic methods or by illustrators versed in the medical tradition as well as in pictorial art.

The author wishes to express appreciation to the members of the Department of Medical Art of Southwestern Medical School of the University of Texas for their efforts and encouragement in the preparation of this article. He wishes also to express deep appreciation to Dr. Curtice Rosser, Dr. Milford O. Rouse, Dr. Charles L. Martin, Dr. J. Bedford Shelmire, Dr. Everett C. Fox, and many other physicians for their many years of understanding and appreciation of the efforts of the author and this department.

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PRACTICAL ILLUSTRATIONS FOR THE PHYSICIAN IN PRIVATE PRACTICE

THIS paper is presented to emphasize the importance of illustrations to the physician and to review briefly the various methods used to obtain the essential illustrations.

Pictorial records of a patient are important from the standpoint of teaching and documentation. They will enable the doctor later to report unusual cases to his medical society or to offer articles for publication. Properly chosen illustrations enhance the value of medical papers and discussions because they show clearly an idea which the author may find difficult to describe.

During treatment, "before and after" photographs taken at correct intervals give the patient an idea of his need for treatment and present tangible evidence of the benefits he is receiving, resulting in increased confidence in the doctor. They can show how treatment has helped others with similar disease. The physician benefits, too, in being able to illustrate the case history when he is referring patients, in keeping photographic records which protect against malpractice suits or which might be admissible evidence if such a suit should arise, and in being able to make comparisons and do research when patients are not available.[7]

"Before and after" photographs are particularly desirable in those conditions in which the physician feels fairly certain of producing cures or long lasting results. Such records are especially useful in cosmetic problems in which changes are slow and in which memory or one's eyes fail to recall accurately the original appearance.

Two types of pictorial records can be kept—photographs and drawings. In certain instances the physician is qualified to do his own photography or drawing; in others it is necessary to enlist the aid of a trained photographer or artist.

It is difficult to interest the average commercial photographer in taking medical photographs, and more preparation on the patient's part is necessary if appointments must be made with the commercial photographer. Sometimes the physician can arouse the interest of a local camera club and develop acceptable medical photographers. He also can seek the aid and advice of draftsmen and engineers who use charts and graphs in their daily work when he wishes to procure that type of drawings. For simple sketches showing size, position, and general outline, the physician himself may turn out satisfactory work. However, for uniformly good results, and certainly for precise, complicated illustrations, sketches should be made by an artist familiar with medical subjects.

It is difficult for the average practitioner to have available a medical artist, although he may obtain the services of a professional medical illustrator at a medical school or medical center. Furthermore, it is almost impossible for an artist truly to reproduce the appearance of cellular structure or the several differences in the color of a dermatologic lesion even though an artist's sketch is preferable for anatomic or surgical records. As a rule, therefore, photographic records are the most desirable to keep and easiest to secure, but there are times when illustrations drawn by an artist are invaluable.

PHOTOGRAPHS

The use of photography by a physician often is in direct proportion to its convenience. It is preferable to have the photographic setup in the office where it is handy. Other factors influencing the number of photographs which are taken are compactness of the equipment and the time consumed in arranging the subject and taking the picture, as well as the initial cost of the equipment. Unfortunately, many cameras for close-up illustrations involve a prohibitive or impractical cost.

EDITOR'S NOTE: *This paper was compiled by Ruth Trahan, B. J., editorial assistant of the* TEXAS STATE JOURNAL OF MEDICINE, *from material prepared by George E. Clark, Jr., M. D., F.A.C.P.; Henry L. Hilgartner, M. D.; C. H. McCuistion, M. D.; John F. Thomas, M. D.; and G. G. Zedler, M. D., at the request of the* JOURNAL *staff and its medical advisory board. Technical information also was supplied by Carl Edward Bock, B.B.A.; Philip T. Flynn, M. D.; and Philip R. Overton, LL. B. All those who cooperated in the project reside in Austin, Texas, and may be reached c/o Texas State Journal of Medicine, 700 Guadalupe, Austin.*

Photographic Equipment

A permanent photographic setup in a physician's office saves a great deal of time. An inflexible arrangement in which all factors are standardized is important if photographic records are not to encroach too much on the physician's time. If the lights are mounted in fixed relationship to the camera and if camera settings are standardized for the type of film used and the camera to subject distance, very little time is necessary to secure an adequate photograph. The best setup is probably a semipermanent one in which the camera can be adapted to several uses. Generally, surface or full body photography is relatively easy, whereas photography of cavities of the body is more difficult and requires special lighting and special apparatus.

Film.—The choice of film will depend somewhat upon the subject and the expected use of the picture. It is advisable to use black and white film for the copying of line drawings and when publication in black and white is anticipated. Color film probably is best for most other types of medical photography.

For reproduction in most medical journals, black and white photographs are the only type that are practicable. For making full color reproductions in a journal, the cost may be as much as fifty times as great as for a black and white reproduction the same size. The engraving expense of four color plates, which are necessary for full color illustrations, is only part of the cost. Printing, binding, and location of the reproduction in the publication are other factors which account for the increase in cost.

Few medical journals can afford the expense of color reproductions and the editor should be queried before color pictures are submitted for publication. Sometimes a color record of a case for all purposes except publication and a black and white record of the same case for use in a periodical may be jus-

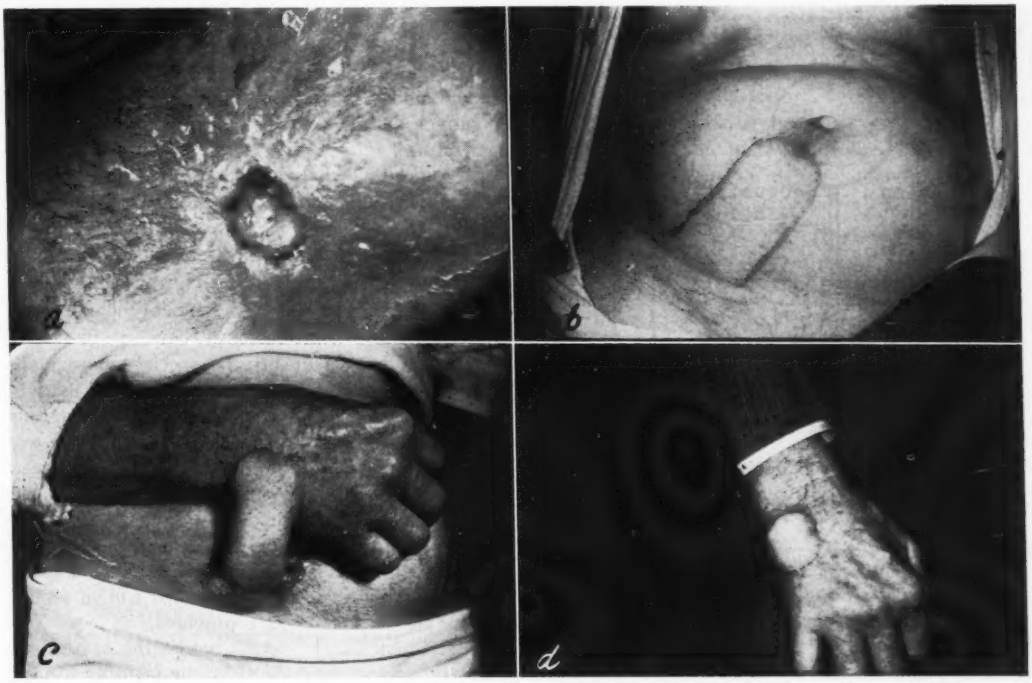

FIG. 1. Photographs demonstrating the progress of a lesion of radiodermatitis treated with skin grafting. (Courtesy of Dr. John F. Thomas, Austin.)

These photographs, a "before and after" series, were taken with the Photek unit using color film and were copied in black and white by an experienced photographer. The original transparency in color showed considerable detail that was lost in the copying into black and white. Labels *a*, *b*, *c*, and *d* have been added to make it easier to refer to units of the illustration.

a. The area of radiodermatitis with ulceration on the dorsum of the right hand before treatment.

In a close-up of this type in which the ulcer is of so much significance and in which detail might be lost if a larger area were included, it is preferable to sacrifice the orienting background and supply sufficient explanation in the legend.

b. The operative site on the abdomen. A full-thickness pedicle skin flap has been elevated twice.

c. The pedicle graft in place after excision of the ulcer. The arm is immobilized with a plaster cast. After the pedicle skin flap was severed from the abdomen, the donor site was covered with a full split-thickness skin graft from the opposite side of the abdomen.

d. The skin graft on the hand after healing. The patient declined further surgery to remove the subcutaneous fat.

Although much of the background of *d* might have been eliminated, cropping was deliberately avoided because the uniformity of size would have been destroyed, making grouping difficult.

tified. If a photograph in black and white is required for publication and only a color picture is available, it can be copied in black and white by a professional photographer, but some detail of the original will be lost (fig. 1).

Pamphlets put out by Ansco, E. I. du Pont de Nemours Company, Inc., or Eastman Kodak Company outline well the type of black and white film necessary for copying or other purposes. Color film such as Ektachrome* and Ansco† which can be developed locally by an experienced technician is probably preferable to that which must be shipped to a distant developer.

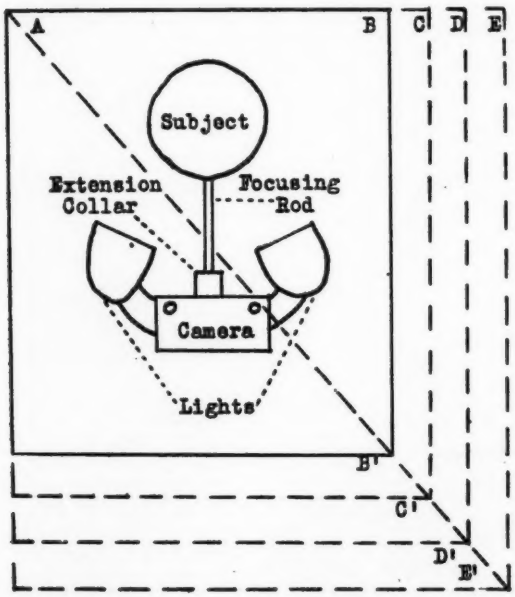

FIG. 2. In the upper left corner is a schematic drawing of the Photek unit. (Courtesy of Dr. C. H. McCuistion, Austin.)

Superimposed upon this drawing, which was done in the physician's office, is an illustration of one method (described in the text) for determining the possible widths and depths of a finished reproduction slightly larger than the original picture. The line A-B'-E' represents the diagonal; A-B indicates the original top width and B-B' the original depth. A-C, A-D, and A-E demonstrate possible new widths, with C-C', D-D', and E-E' being the respective possible new depths. The same procedure can be used to determine the size of reproductions smaller than the original.

When film in rolls is used, the physician may have film in his camera for a period of weeks or months, during which time he may forget how to link the pictures of disease conditions to the proper patient. In such instances particularly, and preferably at all times, the doctor should devise means of identification of the patients whose photographs he takes. He may use a code number photographed at the time the patient is photographed with the same number being designated on the patient's record.

Camera.—The type of camera needed is governed to a large extent by the physician's technical standards, patience, and special interests, and to some extent by his geographic location. If he has high technical standards, has adequate time, and makes his own photographs, he may improvise or devise satisfactory apparatus with any good camera at hand.

A 35 mm. camera is perhaps the most adaptable. Because of its short focal length, it has a great depth of field, and with extension tubes extreme close-ups can be taken. A camera with double extension bellows and ground glass focusing apparatus is excellent for photographic use but is a little more difficult to standardize.

A camera which is not too costly and which can be used either in stationary or portable manner is the "Photek"* unit, which costs about $110 including the camera (fig. 2). This unit is excellent for surface photography. It consists of an Argus C-3 camera which is attached to a light stand by adapters. The camera, therefore, is stationary between two no. 1 photoflood lamps. In lieu of special photographic lenses, the standard lens of the camera is used for close-up shots with the addition of two extension collars. The longer one is used if a small field with intimate detail is desired. The shorter collar is used for a larger area up to 24 inches in diameter. The desired collar is mounted quickly and simply by screwing it into the camera lens mounting between the body of the camera and the lens. Two focusing rods, a 6 inch rod for the longer collar and an 18 inch rod for the shorter one, are provided.

The patient can be seated before the camera, the focusing distance established by the focusing rod, the lights snapped on, and the picture taken in less than one minute. The time required to change the extension collar should not exceed one and a half or two minutes.

The Photek unit can be disassembled easily and quickly without removing the film and the camera then used for ordinary photography, thus eliminating the need for two cameras. Because the lighting, shutter speed, and distance are automatic, the apparatus is "fool proof" and is therefore ideal for those who wish to do photography in the office but who know little or nothing about picture taking. Black and white or color film may be used. For color, indoor 35 mm. type A (K 135 A) should be used.

Examples of photographs made with the Photek unit are shown in figure 1.

If the doctor prefers perfect photographs with a minimum of work, regardless of cost, the Coreco

*Made by Eastman Kodak Company, Rochester, N. Y.
†Made by Ansco, Binghamton, N. Y.

*Supplied by Edward Linder, Jr., Physicians Building, 37 South Twentieth Street, Philadelphia.

Automatic Color Camera* is the answer. In surgical photography each level of the operative incision may be seen clearly by means of the Coreco, and the camera is valuable in photography of body cavities and in autopsy work as well.

Focusing in the Coreco camera is controlled automatically by a rod and frame attached in front of the lens. This device is called an applicator, and special applicators can be used for photographing different parts of the body. The one for intra-orificial shots, for example, is cylindrical and is inserted through a tube or speculum. Lighting is controlled by a built-in, 1,500 watt bulb synchronized with the shutter. A periscope-type apparatus is used for viewfinding.

The Coreco camera is portable, weighing less than 8 pounds. The only other type of equipment needed besides the camera is an electrical outlet, either AC or DC. Despite the initial outlay of about $850 (a more recent, less elaborate model sells for about $480), commercially developed slides may be made for about 20 cents apiece.[7]

Developing and Printing.—In most instances, persons other than the physician will develop and print his pictures; hence, the phototechnician will require instructions as to what part needs emphasis and the purpose of the reproduction. In certain instances retouching is of value; however, the physician should supervise this work by the artist so that necessary portions of the photograph are not obscured or misrepresented.

DRAWINGS

Dr. Frank Netter, noted medical illustrator, has emphasized that good color photography may at times produce a faithful and realistic picture of a specimen or a stage in an operation but that the camera cannot discriminate the important from the trivial, eliminate unrelated elements, nor interpret. Because it cannot do these things, it often fails to produce useful or instructive illustrations. Insofar as the medical artist can achieve these things, he holds an advantage over the camera.[5]

The physician may ask a medical illustrator to be present at the inception of operation or treatment. On the other hand, he may be able to make simple sketches which later can be copied with more care or turned over to a competent commercial artist or medical illustrator. Local commercial artists and draftsmen may aid the physician in drawing certain types of charts, graphs, and illustrations which do not require a vast amount of medical knowledge and background. Medical illustrators, of course, are best qualified for highly technical drawings.†

*Coreco Research Corporation, 1908 Broadway, New York 23.

†*Examples of the types of work which the medical illustrator can do are shown in the article "Visualizing Problems in Medicine" by Lewis Waters in this issue of the* JOURNAL.

CHOICE AND PREPARATION OF ILLUSTRATIONS

Number and Size.—The physician before taking photographs or making arrangements for drawings for an intended article will do well to exchange his views with the editor of the publication to which the manuscript ultimately will go. It is usually advisable to determine the number and size of illustrations which are permitted and whether or not color is possible. Although the physician may have a large number of illustrations available, he should choose only those that bring out the main features of his paper. Technically poor illustrations should be included for publication only if they are essential to the meaning of the paper. Some illustrations when printed may be so reduced in size that details apparent on the original are completely lost; this is frequently true in roentgenograms.

A reasonable uniformity in the size of illustrations, particularly in a series, which the author submits is helpful to the editor, who later is responsible for planning the layout of the article and pictures (fig. 1). This does not mean that various sizes in pictures cannot be used, however.

Pictures cannot often be used the same size as submitted; therefore, trimming (cropping) and photographic reduction become necessary (fig. 3). Rarely it is desirable to reproduce the illustration in a slightly larger size. The author can help the editor plan the layout for illustrations by placing marks for suggested cropping in the margins of the illustration or on the reverse side.

When a drawing or photograph is changed in size during the photoengraving process, the proportion of width to depth (length) always remains the same. This means that the author may get an idea of how large the finished engraving will be by applying the old ratio and proportion formula: new width is to new depth as copy width is to copy depth. Any one dimension can be computed when the other three are known.

For example, if a 3 inch engraving is desired from a photograph which measures 6 inches in width by 8 inches in depth, the depth of the reproduction may be calculated as follows:

$$3:x :: 6:8$$
$$6x=24$$
$$x=4$$

Another way to determine the depth of the finished reproduction is to draw a rectangle the size of the original picture and then run a diagonal from the upper left corner to the lower right corner. When the new width is measured on the top line from the left corner and a perpendicular is dropped from the new right corner, this perpendicular from top line to intersection with the diagonal will be the new depth (fig. 2).

Content.—The author may economize in the preparation of illustrations in several ways. He may use

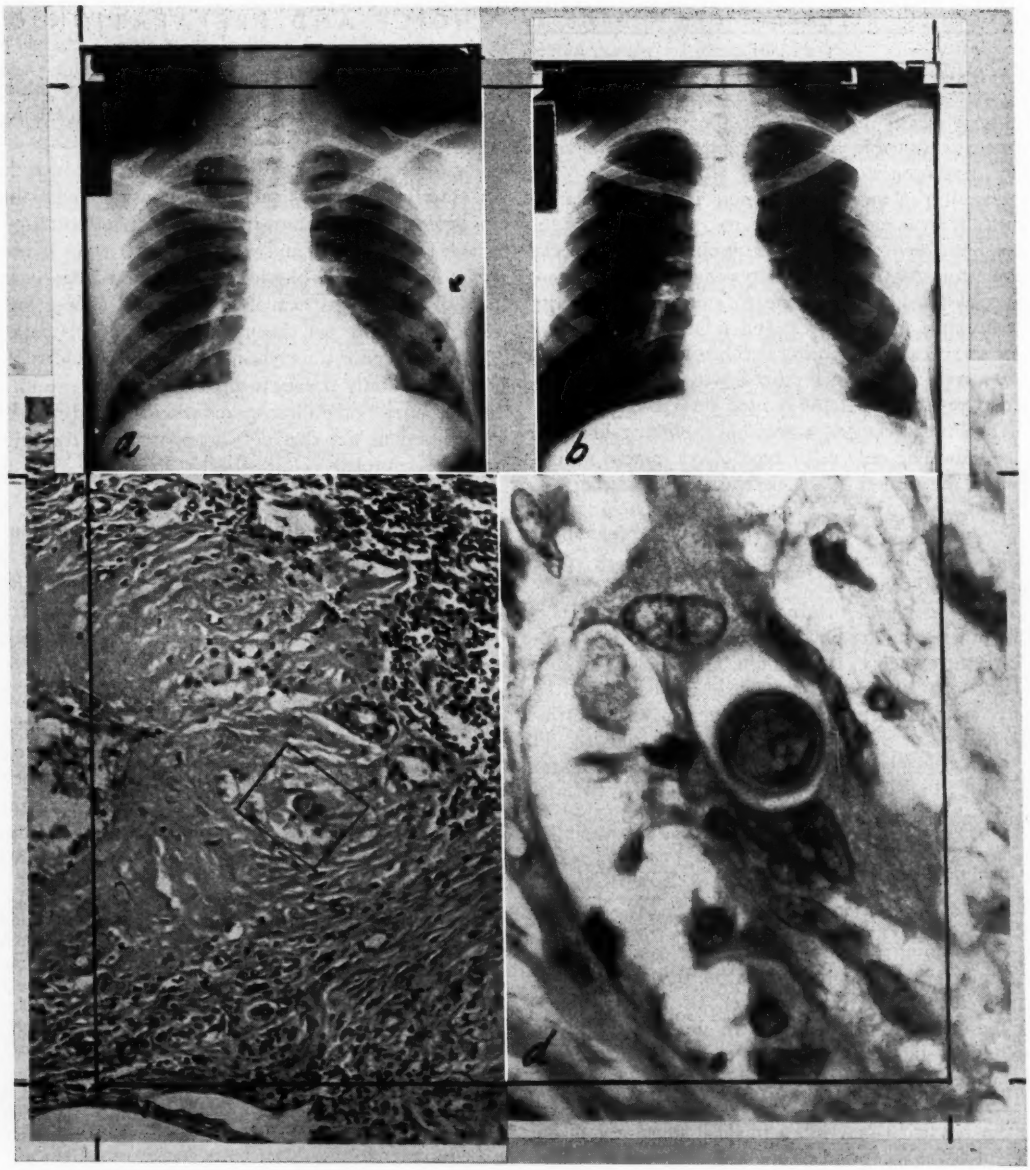

FIG. 3. Solitary coccidioidal granuloma of the lung treated by wedge resection. (Courtesy of Dr. Raleigh R. Ross, Austin.)

Trimming and grouping of related pictures in another "before and after" series are illustrated. The author placed "crop marks" in the margins of the photographs to show the editor the maximum trimming which could be done without harming the value of the pictures. The area within the heavy black line is the area which would appear in the finished engraving.

a. A roentgenogram demonstrating a circumscribed lesion of increased density in the lowermost border of the upper lobe of the left lung.

Two arrows have been made with black ink to point out the lesion. Had it been necessary to place the arrows on a dark area, white ink would have been substituted.

b. A roentgenogram made after operation showing the absence of the lesion described in *a*, with a mild residual thickened pleura being evident.

Both *a* and *b* were trimmed at the bottom and are marked for trimming at the top to make them the same size and to include the same areas for easy comparison. The name of the patient originally evident in the upper left corner of *a* and of *b* has been obliterated. The space between *a* and *b* has been painted gray to fill out the width necessary to match the width of *c* and *d* and to blend with the photographs more pleasingly than would white.

c. A photomicrograph of the periphery of the granuloma (x 187). In the center is a spherule of Coccidioides immitis within a giant cell. About the latter is a dense fibrous tissue, and in the upper right section is shown the heavy lymphocytic infiltration of the adjacent lung tissue.

A rectangle has been drawn to emphasize the area which is shown at a greater magnification in *d*.

d. Detail of the organism in *c* (x 1,033). There is a doubly-contoured capsule, and the faint outlines of endospores are visible.

As with the two roentgenograms in *a* and *b*, the photomicrographs have been marked so that when trimmed they will be about the same size, will include the important areas, and will group satisfactorily with *a* and *b*. The original area to be included in the finished engraving was 7½ inches wide and the magnification of the photomicrographs x 280 and x 1,550 respectively; the engraving of the same area is 5 inches wide, thus making the new magnification x 187 and x 1,033.

tables for material which is adaptable to tabular presentation rather than graphs which require drawing. This may be an economy to the editor as well. Tables, which are set by the linotypist, usually are less costly than photoengravings of the same size; the reverse may be true, however, if the tables are especially complicated.

Careful grouping of illustrations can save engraving costs and use space which otherwise might be wasted (fig. 3). The editor usually welcomes the author's suggestions for grouping related photographs. Whenever possible, drawings should be planned as a unit by the illustrator as it is more difficult to group drawings which are drawn separately.

Disturbing backgrounds and extraneous objects should be excluded from the field of photography whenever possible. There should be sufficient contrast between the subject and the background so that the desired features will be emphasized. Devices included in the photograph may help the reader appreciate the size of a lesion; a ruler may be used, as may objects of known size such as a scalpel or scissors. In the photograph of gross specimens, comparing the abnormal to the normal is a simple way of depicting size.

Labeling.—Labels on the face of illustrations can be used to advantage; however, much care is indicated. Lettering too small on the original may be illegible when reproduced, but lettering of boxcar proportion may overshadow the important features in the picture. Labels placed outside a square or rectangle drawn closely around the illustration may necessitate a reduction in size of the picture which would not be required were the label placed within the rectangle. Symmetry and balance should be a consideration in the placement of labels but not at the expense of legibility and logic (fig. 2).

A standard terminology for labels is desirable, and terms should conform to those in the text. Spelled out labels should be used in preference to symbols or key letters, when feasible. The style of letters used for labeling should be simple, and contrast in color of lettering and background should be achieved. Arrows and "leader" lines may emphasize specific points of interest in the picture (fig. 3).

Shipping.—Once photographs have been properly prepared, they deserve good care until they reach their destination—the editor's desk and later the engraving establishment. Needless to say, negatives and prints should be given ordinary care to prevent scratching. They should not be clipped, pinned, or stapled. Pressure from typewriting or from a hard lead pencil used on the reverse side may break the glossy surface. For any writing on the backs of photographs, a soft lead pencil (no. 2 or softer) without pressure should be used.

There are several safe methods for indicating the sequence of illustrations: one is to write lightly on the back of the picture the desired information. Another is to type or write the information on a separate slip of paper and to paste it in such a manner as not to interfere with the illustration—either at the lower edge or on the back. Information which should be included is the author's name, the title or subject of the article, and the figure number.

Descriptive legends should be typed on an accompanying sheet with numbers corresponding to those on the backs of the illustrations. Legends should be brief but complete and accurate. The magnifications of photomicrographs should be determined and stated in the legend; if reduction for publication is necessary, the new magnification can be calculated (fig. 3). Within the text of the paper should be indicated where the various illustrations belong.

Sufficient cardboard backing should be used to keep illustrations from being damaged in transit. Drawings and photographs should never be folded.

PERMISSIONS AND CREDITS

Permission to use illustrations previously published should be secured from the author and the publisher of the original publication. Even if the author is using one of his own photographs which has been printed before, courtesy demands that he have the express permission of his publisher. In addition, copyright laws entail a legal obligation to obtain permission. Usually such permissions are easily obtained; the author should write for them well in advance of the anticipated date of publication rather than leave it to the editor.

Courtesy also demands that the source of previously printed illustrations be indicated. There are several ways in which this may be done. The simplest is "Courtesy of..." When a full bibliographic acknowledgment is in order, it may be stated thus: "After..." (giving the bibliographic information usually included).

Before taking the photograph of any patient, it is wise to obtain written permission from him to publish the picture. Under Texas law and court decisions, it is definitely advisable to obtain written permission before publication of a photograph which reveals the identity of the patient. If the identity can be concealed by masking the face, painting over the eyes, or some similar device, written permission is not obligatory. However, legal authority recommends that such permission be secured in all cases.

When the patient is a minor, the parents or guardians should give written permission; if the patient is dead, the surviving spouse or closest relative, or in the case of a minor, the parents or guardian,

should sign the release. Forms for obtaining written permissions are used in most large institutions; the physician may adapt one of his own from these.

A sample permission blank which may be used is as follows:

I, _____, hereby give my full permission to_____(person or institution) to photograph any part of my person. These photographs may be used in the study of medical science and in scientific publications, the name and identity to be kept confidential.

The completed form should be signed, witnessed by two persons, and dated.

CHARTS AND GRAPHS

One of the most useful types of illustrations is the line drawing, which includes line or bar graphs and unshaded line sketches, together with necessary figures and lettering which may be hand drawn or typewritten (fig. 2). Such illustrations frequently can be done by the physician with an artistic bent, but neatness and attention to detail spell the difference between an attractive and clear illustration and one obviously done by an amateur. Some line drawings call for the talent of trained draftsmen or artists.

The pertinent facts in some case histories can best be illustrated with charts or graphs; among these are eye fields, ports employed in roentgen therapy, and the angle of the central ray in radiography. Charts and graphs are also useful in illustrating radiation physics. Comparisons of one method of treatment with another, simple anatomic studies, cycles of infectious diseases, and descriptions of uncomplicated instruments are other subjects which can be illustrated by means of a fountain pen and a new typewriter ribbon.

A chart should present one idea or a group of related ideas. It is preferable to have a series of charts rather than to put too much on one chart. Any unnecessary lines or figures should be deleted. Labels, of course, must be clearly visible even in a smaller reproduction.

Charts and graphs, whether made by the physician or someone else, should be executed in black ink upon white paper. If graph paper is used, paper with blue cross hatchings may be chosen so that only the essential lines will be reproduced as blue does not photograph in the reproduction process. When a typewritten or drawn illustration is made, a piece of carbon paper placed with the glossy (transfer) side against the back of the sheet upon which the material will appear results in letters and lines which are blacker and which reproduce well.

Totals (including subtotals) in charts and graphs (tables, too) should be double checked for accuracy. The author should be certain that units compared are basically capable of comparison. The only figures which should be used are those significant from the statistician's viewpoint; for example, percentages based on fewer than 100 observations usually are considered statistically insignificant. The selection of the scale upon which a diagram is presented is of importance in emphasizing certain aspects of the study. A comprehensive discussion of statistical data and their presentation for publication through tables and graphs is given in "Rx for Medical Writing."[2]

SLIDES

There are different methods of making slides to be projected as adjuncts in presenting oral medical discussions. Transparent slides, of course, are not suitable for publication, and two sets of illustrations, one for projection on a screen and another for reproduction as engravings, may be required when a paper is prepared for oral presentation and for printing.

The same rules about simplicity, labeling, and cropping of illustrations for publication apply in the preparation of lantern slides for oral presentation.

Transparencies.—The 2 by 2 inch transparencies are being used for slides more frequently because of their simplicity, their excellence from the photographic standpoint, and their small size, which simplifies storage.

Color slides of excellent quality can be obtained simply by exposing 135 or 828 film in a suitable camera. The color transparencies are returned from the processing laboratory in slide binders suitable for projection. The convenience of using 35 mm. color film for slides recommends this method for "before and after" surgery sequences and for presenting photographs of pathologic specimens.

Black and white slides 2 by 2 inches also can be made with the 35 mm. camera for the projection of tables and charts. Direct positive film is used, and again the finished slide results simply from processing the film.

Standard lantern slides are 3¼ by 4 inches. For making transparencies of this size, a camera which will take a pack of film and which has a ground glass plate for focusing is the most satisfactory. This type of equipment is used most often by professional photographers, and the method is not generally adaptable to office photography.

*Radio-Mats.**—One means of preparing 3¼ by 4 inch slides without photography involves typewriting or drawing on a flexible, transparent film through a sheet of "carbon paper." The necessary materials, conveniently packaged for use, are available commercially as "Radio-Mats" at a cost of about 3 cents each.

A typewritten slide may be made by typing (preferably without a ribbon) on the back of the transfer paper within the guide-frame envelope of the Radio-

*Radio-Mat Slide Company, Inc., Daytona Beach, New York, and Philadelphia.

Mat. The letters are transferred to the transparent film, which then is removed from the envelope, separated from the transfer paper, and placed between two sheets of glass (a part of the Radio-Mat kit). The glass is bound together with Scotch tape. The guide-frame envelope and transfer sheet may be discarded, but the cover glass can be re-used when there is no further need for the original slide.

Simple diagrams which the doctor draws or traces may be transferred to the Radio-Mat with a sharp pencil or stylus, using a piece of cellophane paper to avoid tearing the transfer sheet. After the drawing has been made, leader lines and labels can be affixed with the typewriter.

MOTION PICTURES

Motion pictures of surgery and various types of external treatments may offer a record and a means of communicating techniques impossible with still pictures. Medical photography requires considerations by both the physician and the photographer (whether or not combined in one person) not necessary for other types of photography, and careful planning prior to filming should be done to produce results worthy of the effort. Modern cameras and equipment have simplified greatly motion picture photography, making possible results which even ten years ago would have challenged the ability of a professional photographer.

If the physician is experienced in taking landscape and portrait motion pictures, he may attempt medical sequences. Of course, if he is occupied in surgery, he cannot literally do the photography, but he might set up all the necessary apparatus and have the filming done by an assistant. The alternative is to turn over the entire job to a professional filmer.

Regardless of which choice is made, the physician must prepare in advance a script or outline of his procedure. This script must specify each minute step so that the film will provide a clear visualization of the operation or treatment. If the job is turned over to a professional filmer, further details of light, lens, and camera can be determined by him upon study of the script. If the physician himself is planning the photographic job, he should give some thought to the following points:

Size of Film.—Ordinarily, 8 mm. film is unsatisfactory for detail work; 16 mm. provides a sharpness, especially in large size projection, which is desirable for audience perception of detail. Also, sound can be added to 16 mm. much more satisfactorily than to 8 mm.

Black and White or Color.—Modern color film is a marvelous vehicle for photographing surgery anywhere in the anatomy, while black and white might serve to record treatment of broken bones or external treatments without surgery.

Camera, Lens, and Shutter.—For best results, a camera with at least an f 1.9 lens and shutter speeds from sixteen to sixty-four frames per second should be available. A 1 inch lens is most frequently used but a large array of supplementary lenses which permit close-up, wide-angle, and other special effects is available. The high speeds permit "slow motion" photography.

Lighting.—Adequate lights must be available. Whether or not regular lighting in surgery is sufficient is a matter for measurement with a light meter. Additional lights would likely be necessary in most instances, particularly in color photography, and for a concentration of light on work areas.

Sound.—A film complete with sound track is the best medium for repeated use, and a sound track can be made by studios equipped for the purpose. For a sound track to be added to film, however, the camera must operate at a speed of at least twenty-four frames per second. Titles and explanations should be made and prepared by professional title studios, of which there are many scattered throughout this country.

A recent development in adding sound to film is a method whereby the film is sent to processing laboratories where a magnetic edge is added.* When returned to the physician, sound can be added as on a wire recorder. This film also can be purchased with a magnetic edge on it, so that sound can be put on during the course of filming.

SPECIAL CONSIDERATIONS

Internist.—From the standpoint of the internist, pictures of a patient before and after treatment; pictures of gross specimens removed in operative cases; and photographs of bone marrow, blood, and tissue sections are the most usual types of records desired. These photographic records usually are satisfactory in still pictures and frequently in black and white, although color may bring out detail otherwise impossible. Graphs, charts, and illustrations demonstrating equipment are of considerable importance.

Surgeon.—In general surgery, surgical technique probably is the most important type of record. For depicting surgical operations photographically, the only medium of real value is motion pictures in color. Black and white motion pictures, and particularly black and white still photographs, are poor methods of illustrating most surgical procedures because of the lack of contrast and the poor detail. Illustrations depicting the various steps in surgical operations for publication are best drawn by medical artists.

Dermatologist.—In many training centers devoted to dermatology the preceptor will not allow trainees

*Bell and Howell Company, 7100 McCormick Road, Chicago 45.

to ask the patient questions regarding his dermatoses. By the very nature of dermatologic lesions the picture presented speaks for itself, and the diagnosis, duration, and symptoms are mutely evident. Hence, it follows that as much as any branch of medicine dermatology is one in which photography is of immense value.

In most diseases of the skin, the color of the lesion and the contiguous skin is an important sign. Illustration by a medical artist leaves much to be desired in showing a picture of a dermatologic condition. Therefore, color photography is infinitely more desirable.

Radiologist.—Roentgenograms are routinely available at the beginning of a diagnostic problem, but after diagnosis is made, periodic follow-up films are seldom made either because of inconvenience to the patient or physician or because of indifference. It is believed that a minimum of three and preferably four roentgenograms should be made in the course of rare or interesting cases.

Roentgenographic records should be kept on injury cases possibly involving future law suits and in those cases in which skin changes or pain cannot be avoided.

Radiographs for publication should be positive prints on opaque paper. An excellent summary of the complex methods required to produce slides and other types of radiographs is given by William S. Cornwell in "Medical Radiography and Photography."[1]

Microfilming with automatic machines can be used to copy radiographs when storage space is limited.

Ophthalmologist.—Photography of the eye requires two distinctly different types of camera: (1) the retinal camera, which can be used for color or black and white pictures, and (2) a camera which will photograph the external parts of the eye and their appendages.

The first successful retinal camera was made by Zeiss and put on the market in the late 1920's, but there are only a few Zeiss cameras in this country. The Bausch and Lomb Optical Company* currently offers a satisfactory retinal camera. Technically, retinal photography is not difficult and can be done by any ophthalmologist with ease after the few mechanical details are mastered.

The problems related to retinal photography are few but important. First, the camera is expensive and most ophthalmologists are unwilling to invest such a large sum in equipment of this type. Second, the best pictures are obtained when the pupil is dilated at its maximum, and this condition cannot always be obtained. Third, cooperation of the patient is paramount. Many patients wish to cooperate and will try to do so but are unable because of their temperament or because the intense light necessary for focusing is very painful. Also, in some cases dilatation of the pupil is contraindicated. The time necessary for taking the photograph varies with the factors previously named.

Photography of the external eye and its appendages is little different from photography of other external parts of the body; however, in view of the fact that the eye is extremely sensitive to light, the apparatus which can be focused and the picture snapped quickly gives the best results.

Clinical Pathologist.—Photomicrography is highly specialized and rather complex. It requires special lenses, special lighting, and special filters, which means that an expensive outlay is necessary. Unless the physician plans to do photomicrography regularly, the investment in such equipment is not worth while. He may choose instead to ask help from the nearest teaching medical center or other type of institution which is equipped to do photomicrography routinely.

PRESENTATION FOR LAY AUDIENCES

Many physicians are becoming increasingly aware of the value of pictures to explain disease conditions and methods of treatment to patients and to lay audiences. To be of the greatest value, illustrations should be planned with this specific audience in mind. The doctor should use anatomic charts, simple graphs, tables, diagrams, and photographs which will demonstrate to untrained eyes the main points of concern. If he prepares his own illustrations, he should avoid the use of highly technical terms and minor details. The right kind of pictures can save the physician's time and can be a real boon in the overall picture of public relations.

If it is anticipated that pictures taken of patients may be used before lay audiences, it is advisable to mask the patient so that identification is impossible.

SUMMARY

The practicing physician will find it advantageous to make use of the many practical methods of pictorial record open to him as (1) an adjunct to case histories, (2) a means of explanation to the patient of what therapy has achieved, (3) evidence for use in case of law suit, (4) material for presentation either orally or by publication for the benefit of medical colleagues, and (5) a visual aid for explaining medical mysteries to lay audiences.

In most instances still photographs which the physician can take himself are the most convenient and practical visual record, but motion pictures (which he may film or direct), simple line sketches and charts which can be made by him or his staff, and drawings prepared by medical illustrators are invaluable in certain instances. Consideration of the subject to be pic-

*Rochester, N. Y.

PRACTICAL ILLUSTRATIONS — *continued*

tured and the disposition which is to be made of the illustration will indicate the medium of visualization to be chosen and the details of its handling.

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Suggestions for handling manuscripts are outlined below.

1. Each contribution should be typed on one side of the paper, double spaced, and with ample margins.

2. Except in unusual instances the length of original articles and case reports should not exceed 2,500 words. Current editorial comments should contain from 300 to 500 words.

3. The title of the paper and the names, degrees, and addresses of the authors should head the manuscript except in the case of current editorial comments, for which the information about authors should conclude the manuscript. The author's mailing address should be at the end of each manuscript.

4. The text of the paper should be in narrative style with complete sentences and few abbreviations, appropriately paragraphed and with subheadings inserted at logical points.

5. Previously published material should be indicated. Short verbatim quotations in the text usually are used without permission, but such material should be quoted exactly, enclosed in quotation marks, and credited by a reference number to the proper bibliographic entry. Extensive textual matter, tables, drawings, charts. or photographs are reproduced only with the permission of the author and original publisher. Written permission from these two sources should be obtained by the essayist and attached to the manuscript.

6. An original article or case report should include a brief and concise summary or conclusion.

7. The reference list for original articles and case reports should contain no more than twenty items and for current editorial comments no more than six. The list should be arranged alphabetically with complete bibliographic information including surnames and initials of all authors, title of article, name of journal or book, volume, inclusive pagination, month, day, and year of publication; and publisher, place of publication, and edition, if the work is a book. The reference list should be numbered consecutively and corresponding numbers inserted in the text where desired.

8. A reasonable number of illustrations may be published with original articles and case reports at the expense of the JOURNAL. Illustrations submitted by the author should be in form for reproduction without expense other than the cost of engravings. If new engravings must be prepared because of error on the part of the author, he may be asked to bear the expense of duplication. If the author wishes the illustrations returned after engravings have been prepared, he should make this request when the paper is submitted.

9. Illustrations should be original drawings in black on white paper or positive black and white photographic prints. They should be kept flat and protected by cardboard and should not be clipped or pinned. The name of the author should be written lightly in soft pencil on the back of each illustration. The top of the illustrations should be marked lightly on the back and marks in the margins should show where they could be trimmed without loss of important material.

10. Descriptive legends should be typed on a separate sheet and numbered consecutively. The appropriate number should be marked lightly in soft pencil on the back of each illustration and inserted at the proper places in the text.

11. Tables should be as concise as possible and should be submitted on separate sheets of paper. Complete headings should be used so that tables are intelligible alone without reference to the text. Column headings in the tables should show the points of similarity, side headings the points of difference. It is desirable to prepare tables in such size that when they are reproduced, all parts can be read horizontally.

12. Proof of each original article, case report, or current editorial comment is sent to the author to check before the material is published. Errors in fact and typographical errors should be corrected, but revision of wording or arrangement should be kept to a minimum because of the cost of resetting type. Proof should be read and returned promptly to the JOURNAL to avoid delay in publication.

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14. Engravings of illustrations used with a paper are available to the author without cost except for shipping charges, provided he requests them promptly after publication of the paper. Order blanks for the engravings are mailed with reprint order blanks.

15. Discussions presented orally at meetings and submitted for publication with the paper should be typewritten, brief, and plainly marked with the name of the essayist and title of the paper discussed and the name and address of the discusser. Illustrations and case reports cannot be published as a part of discussions and bibliographic references must be kept to a minimum. Necessary references should be handled as footnotes and should contain complete bibliographic information.

Why the Private Practice of Medicine Furnishes This Country with the Finest Medical Care

JEAN PINKSTON, Dallas, Texas

THE greatest of all reasons why the private practice of medicine furnishes this country with the finest medical care is that this is *The American Way* to render medical service or any other service. Its many accomplishments adequately sustain the position that the private practice of medicine actually does produce a finer medical service.

Through the private practice of medicine we have attained in America the best health record of any large nation on earth.[1] Within the short span of fifty years, since 1900, the private practice of medicine "American System," has lengthened the average person's life from 49 to 68 years,[2] and the general death rate has been cut almost in half.[3] The population of the United States has doubled since 1900, but because of the great progress made in health and sanitation by our "free" medical profession the population above 65 years of age has quadrupled.[4] Our physicians under the private practice system have conquered such dreaded killers as pneumonia, typhoid fever, malaria fever, smallpox, tuberculosis, diphtheria, influenza, and many others.[5]

Such great accomplishments are possible only where freedom reigns—where a person is free not to become a doctor unless he is willing to devote many years of his life to the studying, planning, experimenting, and working, all without thought of mercenary return, necessary to prepare himself properly and to meet the high standards required to qualify as a doctor. To become a successful doctor one must have a deep sense of responsibility to humanity, a strong, scientific and analytical mind, and a determination to succeed over all adversities.[6] To attain such qualities and to maintain such ambition, one must be permitted freedom of thought, freedom of choice, and freedom of action. In the medical profession these freedoms are to be found only under the private practice system.

To accomplish the best results in practice, a doctor must be free to work when he chooses, study and meditate when he chooses, rest when he chooses, and play when he chooses. He must be free to pick the area in which he prefers to practice and to engage in the type practice he likes best. A doctor must be privileged to discourage or discharge a feigning patient or one with only imaginary ailments; likewise, he must be free to spend as much time as necessary with a real, complicated case. Also, a doctor must be free to charge and to receive sufficient remuneration to compensate him for his expenditure of time and energy, to inspire his own confidence in himself, and to enable him to inspire his patients' confidence in him. A doctor must be regarded and treated as a professional man. He cannot be treated as a worker and still attain the achievements expected of him. All these qualities and conditions combined constitute the private practice (American system) of medicine.

The people, including the patients, play a large part in making any system of medicine work successfully. Certainly vaccination, inoculation, and quarantine programs are good, but the confidence of the people is essential to success. The American people of today have the utmost confidence in our doctors and our medical societies. Therefore, whenever any program is recommended by a person's physician, and especially when it is approved by the medical society, the people have confidence in it and will cooperate toward its success. Any patient responds to treatment more readily when his mind is at ease, and his mind is most at ease when he is under the care of a doctor in whom he has the greatest confidence. This requires that the individual be left free to consult the doctor of his choice. It is highly beneficial to the patient also to know that he can reveal his innermost secrets to his doctor and that they will be treated in strictest confidence. Under our American private practice system the patient may rest assured that the confidential doctor-patient relationship will be held inviolate even by the government and the courts. Likewise, it is especially comforting to the patient to know that he is getting the finest possible medical care at the lowest possible cost. All these advantages are found only under the free, private practice system.

Under any alternative, socialized or nationalized, system of medical practice, the plan does not work that way. Under these alternative systems, the government becomes the master, the doctor becomes a servant of the government, and the patient is relegated to the category of a mere serf. Under socialized medicine freedom of thought, freedom of choice, and freedom of action become almost non-existent in so far as the doctor is concerned. Instead, the power to dic-

EDITOR'S NOTE: *This essay won first place in Texas in the 1952 contest for high school students on the subject of the essay's title sponsored nationally by the Association of American Physicians and Surgeons and in Texas by the Texas Medical Association and its Woman's Auxiliary. Miss Pinkston is a senior at Sunset High School in Dallas, and her essay appears here just as she wrote it.*

AUTHOR'S NOTE: *Some of the factual material used herein was obtained from literature furnished by the Dallas County Medical Society; however, most of my research work for the essay was accomplished through conferences with doctors, lawyers, bankers, and teachers, who are interested in opposing socialized medicine.*

tate all policies and practices becomes invested in government bureaus. No longer is the doctor free to choose where he shall practice, and no longer is the doctor free to seek the remuneration to which he feels he is entitled, because under socialized medicine these rights are usurped by the government.

Under the nationalized health service now in effect in England, the doctor is forced to bow in all respects to political demagogery and the same doubtless would be true under a similar system in this country. Regardless of how good a doctor a person is or how ethical he is in his practice, unless he is, first of all, a good servant of the master, the Minister of Health has full power to dismiss him from the medical profession. No matter how unjust the minister's action might be and no matter what grave injuries might result to the doctor by such unjust dismissal or other penalty, the doctor, nevertheless, has no recourse. The minister does not even have to give a reason for the penalties he imposes. These conditions certainly are not conducive to inspirational achievement in medical care. Under socialized medicine, the doctor is required to spend much of his time grinding out bureaucratic red tape in order to please his government overlords, instead of utilizing this time ministering to his patients. No longer does the doctor enjoy a personal and confidential relationship with his patients, since his records must be open at all times to government inspectors, most of whom are not doctors. Under socialized or nationalized medicine the doctor's allegiance is transferred from his patient to his bureaucratic boss or to the political party then in power. There would no longer be much incentive for achievement in the healing arts. Instead, the greater incentive would be for achievement in political science.[7]

History proves that under "political" medicine the doctors are deluged with floods of unwarranted calls, since the doctors' services are free to everybody. Frequently this means that those who really need medical care must remain in line and suffer until they can get to the doctor. Even emergency cases often cannot reach a doctor, simply because of the long lines of patients with only imaginary ailments. Under our system of private practice each one is supposed to pay for the medical attention he receives. For that reason a person is not inclined to seek medical attention unless he is really in need of medical attention. This practice eliminates the long lines of insincere patients.

Though socialized medicine is publicized as being free of charge, actually it is much more expensive than the better type care under the private practice system. The difference is that under socialized medicine the medical bill is paid in the form of taxes. This means that vast numbers of additional employees must be maintained on the government payroll. Among these, first, there must be tax collectors to collect the taxes; there must be fiscal agents to handle the money; there must be boards and bureaus to supervise and regulate the doctors, hospitals, etc.; there must be paymasters to pay the doctors' salaries and other medical expenses; there must be administrators to keep the whole system in operation; and finally, there must be numerous investigators, either to catch the crooks that infiltrate the system, or to shield their chicanery from the voters. All of these must be paid out of the taxes collected to pay for medical expenses. This means that the people must pay twice as much for medical care, while the doctor receives only half as much as he would under the private practice system.

Another reason socialized medicine would not work as efficiently as the American system is because under the socialized system the medical profession would not command the confidence of the people as well as it does under the private practice system. It is a well known fact that the medical profession now enjoys the confidence of the people to a far greater extent than do the workers on the government payrolls. If the doctors were relegated to the position of government workers and the work of the medical societies were transferred to government boards and bureaus, certainly the confidence of the people would wane accordingly.

In conclusion, suffice it to say that, working under the American private practice of medicine, we have attained a degree of medical perfection never approached by any other system. The private practice of medicine now furnishes this country with the finest medical care of any system known to man. Certainly, therefore, we should not seriously consider abandoning this superior system to political expediency.

DOCUMENTATION

1. "What About this Doctor Shortage?"—Reader's Digest, June, 1951.
2. Voluntary Health Insurance—American Medical Association.
3. A Doctor for You—American Medical Association.
4. A Doctor for You—American Medical Association.
5. Voluntary Health Insurance—American Medical Association.
6. Catalogue (Requirements for Admission)—Southwestern Medical Institute.
7. 100 Questions and Answers on the British National Health Service.

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PLASTIC AND RECONSTRUCTIVE SURGERY ESSAY CONTEST

The Foundation of the American Society of Plastic and Reconstructive Surgery is offering awards in junior and senior classifications for original contributions in this field in the 1952 essay contest.

The contest is restricted to residents and surgeons in practice of plastic and reparative surgery for not longer than five years. All essays in both classifications must be received by the award committee not later than September 1, 1952. Further information may be obtained by writing the Award Committee, Dr. Jacques W. Maliniac, 11 East Sixty-eighth Street, New York 21.

CASE REPORTS

EXPERIENCE WITH VENTRICULAR TACHYCARDIA
A Case of Ten Days' Duration

JAMES F. HOUGHTON, M.D., Taylor, Texas, and
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OF all the tachycardias, the most dangerous is of ventricular origin. Unlike auricular tachycardia, it occasionally has an insidious onset. The course is not benign, so early diagnosis and immediate treatment is essential for patient survival.

A survey was made of all ventricular tachycardias diagnosed and recorded at the Jersey City Medical Center over a two year period. All cases were substantiated by electrocardiograms, and many had more than one follow-up tracing. As in other series[4] ventricular tachycardia occurred in many patients with organic heart disease.

As early as 1909 Lewis[8] reported the first case of this tachycardia diagnosed by the electrocardiogram. Herrmann and Robinson[14] in 1921 set up the criteria for its diagnosis: (1) auricular beats occurring at an independent and usually slower rate than the ventricular complex; (2) ectopic beats of ventricular origin present before and after the paroxysm; and (3) these ectopic beats appearing similar to those found in the paroxysm. In addition to adhering to those criteria, we think that the QRS complex should be 0.12 seconds and longer, that the P waves may or may not be identifiable, and that the ST segments may blend into the period of ventricular depolarization.

REVIEW OF PRESENT SERIES

Our series consisted of 10 men and 11 women in the following age range: 41-50 years, 1; 51-60, 7; 61-70, 6; 71-80, 4; 81-90, 2; 91 or older, 1. However, paroxysmal ventricular tachycardia is not limited to adults. Rosenbaum reported 19 cases in children who were less than 1 year of age.

Thirteen of our patients gave a history of heart disease or its manifestations lasting six months or more. Three patients gave no history of heart symptoms prior to the tachycardia. Eight patients were admitted with mild or moderate congestive failure. Six were diagnosed on the first electrocardiogram as having had a recent myocardial infarction, and 2 had evidence of old infarcts. In 5, the electrocardiogram showed a bundle-branch block. Four in our series had diabetes. This number of hearts showing pathologic manifestations fits well with other reports, in which normal hearts were less than 20 per cent.[10, 17]

In 7 patients the diagnosis of ventricular tachycardia was made and recorded prior to obtaining the electrocardiogram. In other cases the diagnosis was that of auricular tachycardia, and the electrocardiogram was taken merely to confirm this erroneous impression.

The clinical picture in most instances was typical. The patient suddenly developed a shock-like state, with or without chest pain. He perhaps mentioned palpitation and dyspnea and was usually orthopneic. The heart rate ranged from 100 to 300 per minute; the average was 140 to 160. Careful auscultation revealed minor irregularities in intensity and rate of the first sound. Jugular vein pulses, when present, occurred at a slower rate than the ventricular beat. The failure of vagal stimulation added weight to the diagnosis of ventricular tachycardia. At times, only one heart sound was heard.[1]

The total oxygen consumption fell during the attack. As shown by Barcroft and others,[2] the depth of respiration may be half normal despite a doubled rate, and the minute volume of the heart falls from 5 to 2.1 liters. In our cases we found the blood pressure to be either absent or falling slowly during the first few hours after the onset of tachycardia.

Therapy

Digitalis.—In our cases, 12 patients had received digitalis preparations prior to the tachycardia. Five had received small doses for varied periods. The 7 patients to whom large doses had been given received approximately 1.2 mg. within a few hours of the onset of rapid heart rate. In 2 patients the drug was given without a check electrocardiogram to ascertain the arrhythmia.

Four of these 7 patients died, 3 in thirty-six hours and 1 in four days. Of the 3 surviving large doses of digitalis, 2 had been given it after therapeutic amounts of quinidine had failed to slow the rate. In both patients, the rate became normal after full digitalization.

Nine patients received no digitalis. Of this group,

6 died; 1 of them was not classed as a cardiac fatality but as a fatality from renal failure. In this group of 6 deaths were 4 patients who received no medication after the tachycardia began.

According to Herrmann and Hejtmancik, ouabain and digitoxin are less toxic than most preparations. Sherf and Kisch[15] have expressed the opinion that the dose of digitalis and the onset of tachycardia are not related, but from our series there appears to be a relationship. We found that large, even therapeutic doses, given in error (lack of electrocardiogram) or to a

TABLE 1.—*Lesions and Treatment of 9 Survivors from a Series of 21 Cases of Ventricular Tachycardia*

Heart Condition	Complication	Treatment*
Anterior infarction	None	Quinidine 1 dose
Congestive failure	Over digitalized	Quinidine 4 doses
Myocardial irritability	Resistant to quinidine	Quinidine 4 doses daily for 12 days, then 3 doses daily for 2 days, then digitalis
Bundle-branch block	None	Quinidine every 2 hr. for 12 doses
Myocardial irritability	Gas poisoning	Quinidine every 2 hr. for 10 doses
Arteriosclerotic heart disease	Over digitalized	Quinidine 400 mg. every 2 hr. for 12 days, then 400 mg. 3 times daily for 3 mo.
Anterior infarction	None	Quinidine every 2 hr. for 36 hr.
Myocardial irritability	Surgery at time of tachycardia	Intravenous procaine, quinidine 1 dose
Posterior infarct	Diabetes, nephrosis, 10 days of tachycardia	Quinidine, procaine, digitalis†

*All doses of quinidine are 200 mg. unless noted.
†This case is reported in detail in the text.

damaged myocardium may be a factor in the development of the tachycardia. The drug itself did not seem to cause the arrhythmia.

Quinidine.—Fourteen patients received quinidine orally every two hours in at least 200 mg. doses for periods of one to fourteen days. Five of the 14 received no digitalis; of these 2 died. Nine patients had both quinidine and digitalis administered; there were 3 deaths. Four of the entire series received neither digitalis nor quinidine. The mortality rate of these 4 was 100 per cent. This agrees with other statistics[6] in which 3 of 4 without treatment died and 11 of 12 receiving quinidine lived.

Procaine.—During our survey 2 patients were given intravenous procaine. The first was undergoing perineal repair with saddle block anesthesia when she developed ventricular tachycardia. She was given 5 cc. of a 20 per cent solution and one-half hour later 200 mg. of quinidine orally. Her heart rate reverted to normal in three hours. The other case is reported in detail.

Mortality and Survival

Of our 21 patients, 12 died. Five had electrocardiographic evidence of coronary occlusion with infarction. Three had tracings showing bundle-branch block, and two had auricular-ventricular dissociation. Two of those dying had no direct evidence of myocardial damage.

The first of these was a 75 year old woman with pneumonia. She died on the thirty-fourth day with ventricular tachycardia. The second was a 58 year old woman who had been given digitalis one week before admission. On admission she was given another 1.2 mg. before a check electrocardiogram was obtained. The tachycardia was recognized in the tracing, but the patient received no quinidine. She died in four days with congestive failure.

A summary of the lesions and treatment of surviving patients is presented in table 1.

Case Report

The longest period in which ventricular tachycardia was recorded by electrocardiogram was seventy-seven days as reported by Mays.[11] A report of one patient in whom this condition persisted for ten days follows:

A 55 year old white chef was admitted to private surgical service for the removal of a lipoma. He had had diabetes for twenty years, controlled lately by 25 units of protamine zinc insulin daily. A systemic review revealed exertional dyspnea two weeks before admission of the patient. Physical examination showed a well developed, slightly obese man. Blood pressure was 148/88. There was a lipoma over the right scapula and a 1 plus edema of the ankle. Laboratory tests of the urine showed it to have a specific gravity of 1.011, no sugar, and no albumin, and to be normal upon microscopic study. The nonprotein nitrogen level in the blood was 29 mg. per 100 cc. and the blood sugar 241 mg. per 100 cc.; the blood cell count was normal.

The lipoma was removed in thirty minutes on the third day after admission, using cyclopropane anesthesia. The patient had fasted overnight and received his insulin five hours prior to surgery. Glucose in water (2,000 cc.) was administered during and after surgery. Nine hours postoperatively he was sweating and having precordial pain. The blood pressure was 150/90 and blood sugar 345 mg. per 100 cc. at that time.

Nausea, cough, and basal rales were present on the next day. At this point Dr. Frank saw the patient in consultation with his physician. The apical rate was 224 per minute, the blood pressure was 110/60, and the neck veins were distended, along with other signs of congestive failure. The electrocardiogram showed ventricular tachycardia and an acute posterior infarction. The administration of quinidine, in 200 mg. doses every two hours, was started. By the fifth hospital day the blood pressure was absent and the apical rate was 200. In view of the failure of three days of quinidine to give satisfactory results and the increasing congestive failure, the patient was given 1.2 mg. of digitoxin in six hours. During the period from the sixth to the tenth hos-

pital day a mild oliguria developed and the nonprotein nitrogen level rose to 60 mg. per 100 cc. of blood.

On the eleventh hospital day, the patient was given 500 cc. of a .5 per cent procaine solution intravenously. Despite the fact that the patient was rendered unconscious by the dose, no change took place in his tachycardia. All cardiotherapy except a low salt diet was stopped.

By the thirteenth hospital day (tenth day of tachycardia) the shock state was abating; a blood pressure of 120/110 was recorded. The rales cleared but the hepatomegaly persisted. By the fourteenth day the apical rate was 74 in an electrocardiogram demonstrating a posterior infarction and regular sinus rhythm. The nonprotein nitrogen level returned to normal.

The patient left the hospital on the thirty-fourth day, using 12 units of insulin daily for his diabetes. One year later he was in reasonable health.

DISCUSSION

The treatment of ventricular tachycardia resolves itself into one of several methods of stopping it and preventing recurrences.

Absolute bed rest is indicated whether or not any myocardial damage is present. Coupled with this should be adequate oxygen supply and the use of one or more drugs.

Quinidine has been used most frequently, the usual dose being a 200 mg. test dose administered orally followed by the same amount every two hours. Levine has advocated the test dose and then a four hour schedule, raising the dose each time by 200 mg. until the heart rate is normal. Quinidine has been given in quantities as large as 7 Gm. a day. Reich has used 12 Gm. in sixty hours to control a persistent case.[13] His criterion for maximum quinidine dosage was widening of the QRS complex by 25 per cent; anything greater than that was an indication for dose reduction or cessation of the medication.

In acute cases or those accompanied by vomiting, quinidine may be given intravenously. Quinidine sulfate may be given intramuscularly.[5]

The simultaneous use of quinidine and potassium salts has been reported by Stampien and Katz,[16] who stated that the depressant action of potassium on the myocardium will increase the refractory period. The duration of the T-P interval increases from doses of 1 to 2 Gm. of either potassium chloride or acetate on a two hour schedule. Potassium alone has been used.

Atropine's use has been urged by Wilburne[18] in conjunction with cyclopropane anesthesia. The rationale is that atropine allows the auricular rate to exceed the ventricular and assume its role as pacemaker.

The most recent method designed to control ventricular tachycardia is the use of intravenous and oral procaine preparations. Procaine has been used for noncardiac reasons for pain relief and in thoracic surgery as a safeguard against cardiac arrhythmias. The optimum intravenous dose of procaine is 4 mg. per kilogram of body weight in twenty minutes.[7] The more recent development of the amide of procaine (Pronestyl) allows the intravenous administration of 200 mg. per minute (up to 1 Gm.) until the heart rate is normal or until signs of toxicity (hypotension, nausea, convulsions, psychoses) appear. The peak effect is within four minutes of stopping the intravenous Pronestyl. The oral use of Pronestyl is a step forward in treatment.[3] It has the same effect as intravenous administration; it is not destroyed by the procaine esterase of the body. The peak effect of the oral dosage is in one to two hours. The maximum dosage is 1 Gm. every four hours.

The pharmacologic effects of procaine on the heart are dependent on the dose per kilogram of weight of the patient. At 4 mg. per kilogram the T wave amplitude increases. At 10 mg. per kilogram the R wave voltage is smaller, a J segment begins, and ST segment depression starts. Toxic doses produce bundle-branch block, A-V dissociation, ventricular tachycardia, and finally ventricular fibrillation.[9] The effects of the amide form are not as severe. It has supplanted procaine in the intravenous treatment of this condition and is safer than the same therapeutic dose of quinidine given by vein.

Because of the toxicity of digitalis in the presence of ventricular tachycardia, this drug has been an outcast in the early management of the condition. There have been instances, however, when all measures have failed only to have therapeutic doses of digitalis return the heart rate to normal. Foster and Thayer[4] used Digifortis 0.3 mg. daily for six days. On the seventh, the rhythm became regular. Porter[12] recorded similar success with digitalis (0.4 Gm. for three doses) in a case of pure ventricular tachycardia that had resisted all previous therapy. The rate became regular after the third dose, having been irregular for 154 hours.

In our case report, digitalis was used despite the presence of ventricular tachycardia. The failure of quinidine therapy and the gravity of the patient clinically persuaded us to use a digitalis preparation. The cases in which digitalis can be used must be selected carefully, with the downward course of the patient outweighing the tradition of no digitalis in the face of ventricular tachycardia. The use of quinidine or Pronestyl should be first, of course.

SUMMARY

A case of sustained ventricular tachycardia, with survival, is reported. Other experience with ventricular tachycardia is reviewed.

Ventricular tachycardia usually occurs in patients with underlying heart disease. The presence of infarction or conduction defects encourages its appearance.

Various methods of treatment are considered, in-

cluding digitalis. Quinidine and Pronestyl are the current choice.

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Dr. Frank, Bower Street, Jersey City, N. J.

NEWS

COMING MEETINGS AND CLINICS

Texas Medical Association, Dallas, May 4-7, 1952. Dr. Allen T. Stewart, Lubbock, Pres.; N. C. Forrester, 700 Guadalupe St., Austin, Acting Executive Secy.

American Medical Association, Chicago, June 9-13, 1952. Dr. John W. Cline, San Francisco, Calif., Pres.; Dr. George F. Lull, 535 North Dearborn St., Chicago 10, Secy.

NATIONAL AND REGIONAL

American Academy of Allergy. Dr. Walter S. Burrage, Milwaukee, Pres.; Mr. James O. Kelley, 208 E. Wisconsin Ave., Milwaukee 2, Executive Secy.

American Academy of Dermatology and Syphilology. Dr. Donald M. Pillsbury, Philadelphia, Pres.; Dr. John E. Rauschkolb, 25 Prospect Ave., N. W., Cleveland 15, Secy.

American Academy of General Practice. Dr. Jason P. Sanders, Shreveport, La., Pres.; Mr. Mac F. Cahal, 406 W. 34th St., Kansas City 2, Executive Secy.

American Academy of Neurological Surgery, New York, October, 1952. Dr. Henry G. Schwartz, St. Louis, Pres.; Dr. Theodore B. Rasmussen, 950 E. 59th St., Chicago 37, Secy.

American Academy of Obstetrics and Gynecology, Chicago, Dec. 15-17, 1952. Dr. Carl P. Huber, Indianapolis, Pres.; Dr. Ralph A. Reis, 116 S. Michigan Ave., Chicago 3, Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 12-17, 1952. Dr. J. Milton Robb, Detroit, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, Chicago, Oct. 20-23, 1952. Dr. W. W. Quillian, Miami, Pres.; Dr. E. H. Christopherson, 636 Church St., Evanston, Ill., Secy.

American Association for Thoracic Surgery, Dallas, May 8-10, 1952. Dr. Frank B. Berry, New York, Pres.; Dr. Paul C. Samson, 2938 McClure St., Oakland 9, Calif., Secy.

American Association of Genito-Urinary Surgeons, Absecon, N. J., June 19-21. Dr. Charles C. Higgins, Cleveland, Pres.; Dr. Norris J. Heckel, 122 S. Michigan Ave., Chicago 3, Secy.

American Association of Obstetricians, Gynecologists and Abdominal Surgeons. Dr. Leroy A. Calkins, Kansas City, Kan., Pres.; Dr. William F. Mengert, 2211 Oak Lawn Ave., Dallas, Secy.

American Cancer Society. Dr. Guy Aud, Louisville, Ky., Pres.; Mr. M. R. Runyon, 47 Beaver St., New York, Exec. Vice-Pres.

American College of Allergists. Dr. John H. Mitchell, Columbus, Ohio, Pres.; Dr. Fred W. Wittich, 423 La Salle Medical Bldg., Minneapolis 2, Secy.

American College of Chest Physicians, Chicago, June 5-8, 1952. Dr. Chevalier L. Jackson, Philadelphia, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut St., Chicago 11, Exec. Secy.

American College of Physicians. Dr. Maurice C. Pincoffs, Baltimore, Pres.; Mr. E. R. Loveland, 4200 Pine St., Philadelphia 4, Secy.

American College of Radiology. Dr. John S. Bouslog, Denver, Pres.; Mr. W. C. Stronach, 20 N. Wacker Drive, Chicago 6, Executive Secy.

American College of Surgeons, New York, Sept. 22-26, 1952. Dr. Alton Ochsner, New Orleans, Pres.; Dr. Michael L. Mason, 40 E. Erie St., Chicago 11, Secy.

American Congress of Physical Medicine, New York, Aug. 25-30, 1952. Dr. Robert L. Bennett, Warm Springs, Ga., Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.

American Dermatological Association. Dr. Edward A. Oliver, Chicago, Pres.; Dr. L. A. Brunsting, 102 2nd Ave., S. W., Rochester, Minn., Secy.

American Gastro-Enterological Association, Atlantic City, May 2-3. Dr. T. Grier Miller, Philadelphia, Pres.; Dr. Dwight L. Wilbur, 655 Sutter St., San Francisco, Secy.

American Gynecological Society, Hot Springs, Va., May 12-14, 1952. Dr. Walter T. Dannreuther, New York, Pres.; Dr. John I. Brewer, 104 S. Michigan Ave., Chicago, Secy.

American Hospital Association, Philadelphia, Sept. 15-18, 1952. Dr. Anthony J. J. Rourke, San Francisco, Pres.; Mr. George P. Bugbee, 18 E. Division St., Chicago, Executive Secy.

American Laryngological, Rhinological, and Otological Society, Toronto, May 20-22, 1952. Dr. C. S. Nash, 277 Alexander St., Rochester 7, N. Y., Pres. and Secy.

American Neurological Association, Atlantic City, May 8-10, 1952. Dr. S. Bernard Wortis, New York, Pres.; Dr. H. Houston Merritt, 710 W. 168th St., New York 32, Secy.

American Ophthalmological Society, Hot Springs, Va., June 5-7, 1952. Dr. Lawrence T. Post, St. Louis, Pres.; Dr. M. C. Wheeler, 30 W. 59th St., New York 19, Secy.

American Orthopedic Association, London, June 30-July 4, 1952. Dr. Fremont Chandler, Chicago, Pres.; Dr. C. Leslie Mitchell, Henry Ford Hospital, Detroit 2, Secy.

American Pediatric Society, Old Point Comfort, Va., May 7-9, 1952. Dr. Hugh McCulloch, Chicago, Pres.; Dr. Aims McGuinness, 237 Medical Laboratory, University of Pennsylvania, Philadelphia 46, Secy.

American Proctologic Society, Milwaukee, June 4-7, 1952. Dr. R. A. Scarborough, San Francisco, Pres.; Dr. Stuart T. Ross, 131 Fulton Ave., Hempstead, N. Y., Secy.

American Psychiatric Association, Atlantic City, May 12-16, 1952. Dr. Leo H. Bartemeier, Detroit, Pres.; Dr. R. Finley Gayle, 6300 Three Chopt Rd., Richmond 21, Va., Secy.

American Public Health Association, Cleveland, Oct. 20-24, 1952. Dr. Gaylord W. Anderson, Minneapolis, Pres.; Dr. R. W. Atwater, 1790 Broadway, New York 19, Exec. Secy.

American Society of Anesthesiologists, Philadelphia, Nov. 11-14, 1952. Dr. C. Walter Metz, Denver, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph St., Chicago, Secy.

American Society of Clinical Pathologists, Chicago, Oct. 13-18, 1952. Dr. Israel Davidsohn, Chicago, Pres.; Dr. Clyde G. Culbertson, Indiana University School of Medicine, Indianapolis, Secy.

American Surgical Association. Dr. Daniel C. Elkin, Atlanta, Pres.; Dr. Nathan Womack, University of Iowa, Iowa City, Secy.

American Urological Association, Atlantic City, June 23-26, 1952. Dr. Elmer Hess, Erie, Pa., Pres.; Dr. C. H. DeT. Shivers, 121 S. Illinois Ave., Atlantic City, N. J., Secy.

Association of American Physicians and Surgeons, Denver, Oct. 2-4, 1952. Dr. Denton Kerr, Houston, Pres.; Mr. Harry E. Northam, 360 N. Michigan Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter, Chicago, Sept. 2-5, 1952. Dr. H. W. Meyerding, Rochester, Minn., Pres.; Dr. Arnold S. Jackson, 1516 Lake Shore Drive, Chicago, Secy.

National Tuberculosis Association, Boston, May 26-30, 1952. Dr. Alton S. Pope, Boston, Pres.; Mr. Kemp D. Battle, 1790 Broadway, New York 19, Secy.

Radiological Society of North America, Cincinnati, Dec. 7-12, 1952. Dr. Joseph C. Bell, Louisville, Ky., Pres.; Dr. D. S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Miami, Nov. 10-13, 1952. Dr. R. J. Wilkinson, Huntington, W. Va., Pres.; Mr. C. P. Loranz, 1020 Empire Bldg., Birmingham, Ala., Secy.

Southern Psychiatric Association. Dr. R. Burke Suitt, Durham, N. C., Pres.; Dr. Newdigate M. Owensby, Medical Arts Bldg., Atlanta, Ga., Secy.

Southern Surgical Association, Hollywood, Fla., Dec. 9-11, 1952. Dr. I. Mims Gage, New Orleans, Pres.; Dr. John C. Burch, 2112 West End Ave.. Nashville, Tenn., Secy.

Southwest Allergy Forum, Kansas City, Mo., 1953. Dr. Orval R. Withers, Kansas City, Mo., Pres.; Dr. James Holman, Medical Arts Bldg., Dallas, Secy.

Southwest Regional Cancer Conference, Fort Worth, Sept. 25, 1952. Secy., 209 Medical Arts Bldg., Fort Worth.

Southwestern Medical Association, Albuquerque, N. Mex., Oct. 30-Nov. 1, 1952. Dr. James Walsh, Douglas, Ariz., Pres.; Dr. W. W. Schuessler, 1415 First National Bank Bldg., El Paso, Secy.

Southwestern Surgical Congress, Dallas, Oct. 20-22, 1952. Dr. Michael E. DeBakey, Houston, Pres.; Dr. C. R. Rountree, 1227 Classen, Oklahoma City 3, Secy.

Tri-State Medical Assembly, Texarkana, Fall, 1952. Dr. Frank G. Thebault, El Dorado, Ark., Pres.; Dr. Albert M. Hand, 619 Main, Texarkana, Secy.

United States-Mexico Border Public Health Association. Dr. Wilton L. Halverson, San Francisco, Pres.; Dr. J. Ellington, 314 U. S. Court House, El Paso, Secy.

STATE

Texas Academy of General Practice, San Antonio, Sept. 15-16, 1952. Dr. Van D. Goodall, Clifton, Pres.; Dr. B. H. Bayer, 104 E. Twentieth St., Houston. Secy.

Texas Academy of Internal Medicine, Dallas, Dec. 6-7, 1952. Dr. W. C. Dine, Amarillo, Pres.; Dr. John S. Chapman, 3810 Swiss Ave., Dallas, Secy. Meetings restricted to members.

Texas Air-Medics Association, Dallas, May 4-5, 1952. Dr. W. M. Pratt, Houston, Pres.; Dr. J. S. Minnett, 2512 Welborn, Dallas, Secy.

Texas Association of Blood Banks, Galveston, Dec. 5-6, 1952. Dr. E. E. Muirhead, Dallas, Pres.; Miss Marjorie Saunders, 3500 Gaston Avenue, Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Fort Worth, 1953. Dr. D. D. Wall, San Angelo, Pres.; Dr. Carey Hiett, 815 Fifth Ave., Fort Worth, Secy.

Texas Chapter, American College of Chest Physicians, Dallas, May 5 1952. Dr. J. E. Dailey, Houston, Pres.; Dr. Howard Smith, 3215 Exposition Blvd., Austin, Secy.

Texas Club of Internists. Dr. Ghent Graves. Houston, Pres.; Dr. Hatch W. Cummings, Jr., 203 Hermann Professional Bldg., Houston, Secy.

Texas Dermatological Society, Dallas, May 5, 1952. Dr. W. H. Connor, Houston, Pres.; Dr. C. H. McCuistion, Capital National Bank Bldg., Austin, Secy.

Texas Diabetes Association, Dallas, May 4, 1952. Dr. D. W. Carter, Jr., Dallas, Pres.; Dr. Ivan Mayfield, 1312 Main, Lubbock, Secy.

Texas Division, American Cancer Society. Mr. Frank C. Smith, Houston, Pres.; Mr. J. Louis Neff, 1609 Colorado, Austin, Executive Director.

Texas Heart Association, Dallas, May 5, 1952. Dr. Paul V. Ledbetter, Houston, Pres.; Miss Roberta Miller, 411 Reserve Loan Life Bldg., Dallas, Executive Secy.

Texas Hospital Association, Houston, May 20-22, 1952. Mrs. Ruby B. Gilbert, Temple, Pres.; Mrs. Ruth Barnhart, 2210 Main St., Dallas, Secy.

Texas Neuropsychiatric Association, Dallas, May 5, 1952. Dr. David Wade, Austin, Pres.; Dr. James Blair, 1708 Nix Professional Bldg., San Antonio, Secy.

Texas Orthopedic Association, Dallas, May 5, 1952. Dr. G. W. N. Eggers, Galveston, Pres.; Dr. Margaret Watkins, 3629 Fairmount St., Dallas, Secy.

Texas Pediatric Society, Dallas, Oct. 17-18, 1952. Dr. C. S. E. Touzel, Fort Worth, Pres.; Dr. M. C. Carlisle, 1410 Austin Ave., Waco, Secy.

Texas Public Health Association, Galveston, Feb. 15-18, 1953. Mr. H. E. Drumwright, Dallas, Pres.; Mr. Earle W. Sudderth, Dallas County Health Department, Court House, Dallas, Executive Secy.

Texas Radiological Society, San Antonio, Jan. 23-24, 1953. Dr. Robert D. Moreton, Fort Worth, Pres.; Dr. R. P. O'Bannon, 650 Fifth Ave., Fort Worth, Secy.

Texas Railway and Traumatic Surgical Association, Dallas, May 5, 1952. Dr. A. W. Hartman, San Antonio, Pres.

Texas Rheumatism Association, Dallas, December, 1952. Dr. Robert H. Mitchell, Fort Worth, Pres.; Dr. Charles H. Cornwell, Marlin, Secy.

Texas Society for Mental Health, Austin, March 2-3, 1953. Mr. William Grant, Jr., Baytown, Pres.; Mrs. Elizabeth F. Gardner, 2504 Jarratt Ave., Austin 21, Executive Secy.

Texas Society of Anesthesiologists, Dallas, May 5, 1952. Dr. L. F. Schuhmacher, Jr., Houston, Pres.; Dr. Werner Hoeflich, 2301 Reba, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, Dallas, May 5, 1952. Dr. Dolph L. Curb, Houston, Pres.; Dr. C. P. Hardwicke, 120 W. Seventh St., Austin.

Texas Society of Ophthalmology and Otolaryngology, Houston, December, 1952. Dr. J. Charles Dickson, Houston, Pres.; Dr. Lyle Hooker, 627 Esperson Bldg., Houston, Secy.

Texas Society of Pathologists, Dallas, May 6, 1952. Dr. Charles T. Ashworth, Fort Worth, Pres.; Dr. Lloyd R. Hershberger, Shannon Memorial Hospital, San Angelo, Secy.

Texas Surgical Society. Dr. Robert M. Moore, Galveston, Pres.; Dr. Albert W. Hartman, 414 Navarro St., San Antonio 5, Secy.

Texas Tuberculosis Association. Dr. David McCullough, Kerrville, Pres.; Miss Pansy Nichols, 208 E. Ninth, Austin, Executive Secy.

Texas Urological Society. Dr. R. E. Cone, Galveston, Pres.; Dr. Roy M. Morgan, Jr., Hermann Hospital, Houston, Secy.

DISTRICT

First District Society, February, 1953. Dr. Jim Camp, Pecos, Pres.; Dr. H. D. Garrett, First National Bldg., El Paso, Secy.

Second District Society, April 5, 1953. Dr. John Hogan, Big Spring, Pres.; Dr. Arch Carson, Box 111, Big Spring, Secy.

Third District Society, Lubbock, April 14-15, 1953. Dr. James A. Odom, Memphis, Pres.; Dr. James T. Hall, 1626 Fifteenth Street, Lubbock, Secy.

Fourth District Society, San Angelo, November, 1952. Dr. B. A. Hallum, Brady, Pres.; Dr. Lloyd R. Hershberger, San Angelo, Secy.

Fifth and Sixth Districts Society, Corpus Christi, July 11-12, 1952. Dr. G. Turner Moller, Corpus Christi, Pres.; Dr. Y. C. Smith, 1813 S. Alameda Blvd., Corpus Christi, Secy.

Seventh District Society. Dr. George W. Tipton, Austin, Pres.; Dr. D. B. Faubion, 1403 C Guadalupe, Austin, Secy.

Eighth District Medical Society. Dr. Leonard Johnson, El Campo, Pres.; Dr. Robert Casey, Texas City, Secy.

Ninth District Society, Baytown, 1953. Dr. Otto F. Schoenvogel, Brenham, Pres.; Dr. Lyman C. Blair, 1212 Rothwell, Houston, Secy.

Tenth District Medical Society. Dr. Peyton C. Clements, Lufkin, Pres.; Dr. Edmund D. Jones, 2575 South, Beaumont, Secy.

Eleventh District Society, Tyler, 1952. Dr. Roscoe Moore, Mineola, Pres.; Dr. Marlin T. Braswell, Henderson, Secy.

Twelfth District Society. Dr. J. B. Brown, Temple, Pres.; Dr. Neil D. Buie, Marlin, Secy.

Thirteenth District Society, Abilene, May 28, 1952. Dr. W. B. Adamson, Abilene, Pres.; Dr. Robert D. Moreton, 815 Medical Arts Bldg., Fort Worth, Secy.

Fourteenth District Society, Greenville, June, 1952. Dr. N. L. Barker, Paris, Pres.; Dr. L. W. Johnston, 502 W. College St., Terrell, Secy.

Fifteenth District Society. Dr. C. B. Reed, Clarksville, Pres.; Dr. William E. Jones, 619 Main, Texarkana.

CLINICS

Dallas Southern Clinical Society, Dallas, March 16-19, 1953. Miss Betty Elmer, Medical Arts Bldg., Dallas 1, Executive Secy.

Central Texas Spring Clinic, Waco. Dr. Walter B. King, 2320 Columbus Ave., Waco, Secy.

International Medical Assembly of Southwest Texas, San Antonio, January, 1953. Dr. John M. Smith, Jr., 205 Camden St., San Antonio, Secy.

New Orleans Graduate Medical Assembly, March 2-5, 1953. Dr. Woodard D. Beacham, Room 103, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Sept. 17, 1952. Dr. E. Aubrey Cox, Hamilton Bldg., Wichita Falls, Chairman.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 27-30, 1952. Mrs. Muriel R. Waller, 512 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas, Houston, July 21-23, 1952. Dr. C. A. Dwyer, Secy., 229 Medical Arts Bldg., Houston.

Wichita County Medical Society Cancer Clinic, Wichita Falls, May 15, 1952.

SOUTHWESTERN MEDICAL SCHOOL

A fire which swept through the laboratory office building of Southwestern Medical School of the University of Texas, Dallas, on April 3 caused damages estimated at $50,000. The obstetrics and gynecology laboratories were completely destroyed and heavy damage was reported to the pediatrics laboratory. Heaviest loss was in technical medical equipment and books, reports the Dallas *Times-Herald.*

Dr. Gladys Fashena, professor of pediatrics of Southwestern Medical School, has been appointed to the board of governors of Playtex Research Institute, Dover, Del. The institute was founded by the International Latex Corporation for the support of pediatric research and is directed by a board of eighteen nationally recognized leaders in pediatrics.

Dr. Ben Friedman, clinical professor of medicine, addressed the Houston Internists Society on March 27 on "Syphilitic Cardiovascular Disease".

Dr. Gilbert B. Forbes, professor of pediatrics, was guest speaker at the meeting of the Tennessee State Pediatric Society at Knoxville on April 7 and 8.

Dr. William F. Mengert served as moderator of a panel discussion on dystocia at the Fifth American Congress on Obstetrics and Gynecology in Cincinnati March 31 to April 4.

PERSONALS

Dr. Roscoe L. Pullen, vice dean of Tulane University School of Medicine, has been appointed dean of the University of Texas Postgraduate School of Medicine, reports the Austin *American-Statesman.* Dr. Pullen will succeed Dr. Mavis P. Kelsey, Houston, acting dean, on June 1.

Dr. Ozro Woods, Dallas, was a participant in a panel discussion on group practice held April 10 by the President's Commission on the Health Needs of the Nation.

Dr. Russell J. Blattner, professor of pediatrics, Baylor University College of Medicine, was one of the speakers at the annual session program of the Iowa State Medical Society in Des Moines, April 27-30.

Dr. G. V. Brindley, Temple, and *Dr. Joseph D. Mitchell,* Dallas, were guests at the seventy-second annual meeting of the Louisiana State Medical Society in Shreveport, April 28-30. Dr. Brindley spoke at the surgical session and Dr. Mitchell at the urologic session.

Guest speakers at the fifty-ninth annual meeting of the Oklahoma State Medical Association in Oklahoma City, May 19-21, are *Drs. Harland Crank,* Houston, psychiatry; *Charles L. Martin,* Dallas, radiology; and *J. M. Robison,* Houston, laryngology.

Dr. A. W. Brazda, Ranger, was recently elected a fellow of the International Academy of Proctological Surgeons, announces the Ranger *Daily Times.*

A.A.P.S. Essay Contest winner, Miss Jean Pinkston, Dallas (center), was 1952 winner in Texas of essay contest for high school students sponsored nationally by the Association of American Physicians and Surgeons and in the state by the Texas Medical Association and its Woman's Auxiliary. With Miss Pinkston are Dr. Denton Kerr, Houston (left), president of the A.A.P.S., and Dr. Allen T. Stewart, Lubbock (right), president of the Texas Medical Association when the contest was being held.

Dr. Charles Howe Wilson, Wichita Falls, has filled the requirements and been certified as a diplomate of the American Board of Surgery, the Wichita Falls *Daily Times* announces.

Dr. William R. Klingensmith, Jr., Amarillo, has been made a diplomate of the American Board of Surgery, reports the *Bulletin* of the Potter County Medical Society.

Dr. Duncan McKeever, Houston, president of the Association of Bone and Joint Surgeons, attended the fourth annual convention of the association held April 3-5 in Philadelphia. Dr. McKeever recently was appointed regional vice-president of the American Fracture Association, reports *Medical Record and Annals.*

Dr. Herbert Donnell, Waxahachie, was named to the board of directors of the Texas Good Roads Association, the Waxahachie *Light* reports.

Dr. George A. Schenewerk, Dallas, was a guest of the Institute of Public Affairs when it met in Sherman in February to discuss compulsory medical insurance, according to the Dallas *News.*

Dr. J. G. McCall, Brady, who served for more than fifty years as county health officer of McCullough County, resigned in February, says the Brownwood *Bulletin.* The McCullough County Commissioners' Court paid tribute to Dr. McCall for his outstanding service.

Dr. Marvin Schlecte, Plainview, won first place recently in the annual speech contest held by the Plainview Toastmaster's Club and was named to represent the club in the area speech contest, reports the Plainview *Evening Herald.*

Dr. R. L. Lewis, Paris, was awarded the Silver Beaver Award of the Boy Scouts of America at an annual dinner meeting of the Lone Star Area Council, Boy Scouts of America, in Paris on March 3.

Dr. E. G. Smith, Mercedes, was honored February 19 on his eightieth birthday anniversary, reports the Mercedes *Enterprise.*

Dr. Charles Moore Shumway, McKinney, and Miss Frances Walker, Dallas, were married January 28 in New York, informs the Waco *Times Herald.*

Miss Martha Ann Coyle, daughter of *Dr. and Mrs. Edward Weil Coyle,* San Antonio, and Lt. Lane Taylor Sealy were married in San Antonio on March 13.

Among the new births are a daughter born to *Dr. and Mrs. J. R. Brown,* Arp, and a son to *Dr. and Mrs. S. I. Miller,* Houston, reports the *Alumni Bulletin* of the University of Texas Medical Branch.

New babies reported by the Potter County Medical Society *Bulletin* include sons to *Dr. and Mrs. John Pickett,* Amarillo; and *Dr. and Mrs. James T. Hall,* Lubbock; daughters to *Dr. and Mrs. John C. Long,* Plainview; and *Dr. and Mrs. Capres S. Hatchett, Jr.,* Amarillo. *Dr. and Mrs. John B. Rountree,* Lubbock, are the parents of twins.

UNIVERSITY OF TEXAS MEDICAL BRANCH

Dr. Harold G. Scheie, clinical professor of ophthalmology, University of Pennsylvania Medical School, gave the annual John McReynolds lecture in ophthalmology at the University of Texas Medical Branch in Galveston on April 18.

In honor of the late *Byron M. Hendrix,* Ph.D., professor of biological chemistry at the University of Texas Medical Branch, the Byron M. Hendrix Seminar Room was established in the Department of Biochemistry and Nutrition in the new Gail Borden Laboratory Building.

Melvin A. Schadewald, Ph.D., has accepted appointment as assistant professor of pharmacology and toxicology at the University of Texas Medical Branch. Dr. Schadewald has been research scientist at the Hastings State Hospital, Hastings, Minn.

Dr. G. W. N. Eggers, professor of orthopedic surgery, was guest speaker at the annual clinical conference of the Chicago Medical Society held in March.

Dr. Truman G. Blocker, professor of plastic and maxillofacial surgery, was guest of the Michigan Clinical Institute at its recent meeting in Detroit.

C. M. Pomerat, Ph.D., director of the Tissue Culture Laboratory and professor of cytology, participated in the program of the American Cancer Society in Cincinnati. Dr. Pomerat left for Europe to lecture on tissue culture research at scientific centers in Portugal, England, and Scandinavia.

Supreme Court Rules in Favor of Oregon Medical Society

An antitrust violation charge made by the government against the Oregon State Medical Society, eight county medical societies, Oregon Physicians Service, and several physicians who are or were officials of these organizations was dismissed by the United States Supreme Court in a seven to one decision April 28. A United States district court previously ruled against the government's charge (October, 1950, JOURNAL, page 779) and direct appeal had been made to the Supreme Court.

The controversy began in 1936 when the medical society opposed contract practice of medicine sponsored by private firms and commercial insurance companies. The medical society charged that treatment and service was dependent upon company approval and often the physician's advice was disregarded. The ethical objection raised at that time by the medical society was that third parties were entering the doctor-patient relationship. In 1941 the medical society began a plan to render similar service on a nonprofit basis in an effort to bring about reform of prepaid medical service within the state. After the society plan had been in operation successfully for seven years, the government brought suit charging that the society monopolized the business of providing prepaid medical care in the state.

The Supreme Court stated, "Objections of the organized medical profession to contract practice are both monetary and ethical. Such practice diverts patients from independent practitioners to contract doctors. It tends to standardize fees. The ethical objection has been that intervention by employer or insurance company makes a tripartite matter of the doctor-patient relation. Since the contract doctor owes his employment and looks for his pay to the employer or the insurance company rather than to the patient, he serves two masters with conflicting interests. In many cases companies assumed liability for medical or surgical service only if they approved the treatment in advance. There was evidence of instances where promptly needed treatment was delayed while obtaining company approval, and where a lay insurance official disapproved treatment advised by a doctor."

At another point the Court stated, "Since no concerted refusal to deal with private health associations has been proved, we need not decide whether it would violate the antitrust laws. We might observe in passing, however, that there are ethical considerations where the historic direct relationship between patient and physician is involved which are quite different than the usual considerations prevailing in ordinary commercial matters. This Court has recognized that forms of competition usual in the business world may be demoralizing to the ethical standards of a profession."

TEXAS UROLOGICAL SOCIETY

The seventh annual meeting of the Texas Urological Society was held in Dallas February 3 and 4. Officers for 1953 are Dr. R. E. Cone, Galveston, president; and Dr. Ray M. Morgan, Jr., Houston, secretary-treasurer.

The following scientific program was presented:

Tumors of the Testis (motion picture)—Dr. David Reisman, Dallas.
Injuries to the Bladder and Male Genitalia—Dr. Eugene B. Vickery, New Orleans, associate professor of urology, Louisiana State University School of Medicine.
Carcinoma of the Prostate: Present Status of Treatment with Radioactive Gold—Dr. Rubin H. Flocks, Iowa City, professor of urology, University of Iowa Medical School.
Pyelogram Clinic—Dr. Flocks, moderator; Dr. Joseph D. Mitchell, Jr., Dallas, presiding.

A luncheon for the wives, a luncheon and business meeting for the members, a president's reception, and banquet were held. Portions of the meeting were held at Parkland and St. Paul Hospitals. Approximately one hundred thirty physicians attended.

The 1953 meeting will be held in Galveston, the date to be announced later.

American Congress of Physical Medicine

The thirtieth annual scientific and clinical session of the American Congress of Physical Medicine will be held August 25-29, 1952, at the Roosevelt Hotel, New York. Scientific and clinical sessions will be held and all sessions are open to physicians in good standing with the American Medical Association. Physicians and therapists who are registered with the American Registry of Physical Therapists or the American Occupational Therapy Association may attend the annual instruction seminars. Further information may be obtained from the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2.

Industrial Health Conference

The 1952 Industrial Health Conference was held in Cincinnati, April 19-25. Participating in the conference were American Conference of Government Industrial Hygienists, American Association of Industrial Dentists, American Industrial Hygiene Association, Industrial Medical Association, and the American Association of Industrial Nurses, Inc.

Annual Report of Public Health Service Released

The death rate for 1951 in the United States was 9.6 per 1,000 population, 10 per cent lower than in 1940, and the average life expectancy at birth has risen to 68 years, the annual report of the United States Public Health Service, released April 1, indicates.

Only half of the 3,070 counties of the country are served by public health departments, the report states. Despite this lack of complete coverage, the fight against some of the communicable diseases showed gains. The death rate from tuberculosis dropped to 22 per 100,000 population, about 50 per cent lower than the rate ten years ago; less syphilis was reported in 1950 than in any year since 1929 and less gonorrhea than at any time since 1942. The 33,209 cases of poliomyelitis in 1950 represented a 21 per cent decrease over the all-time high of 1949. Only 42 cases of smallpox were reported for the year. Infant mortality has fallen from 100 per 1,000 live births in 1915 to an estimated 20 per 1,000 in 1950, whereas maternal deaths dwindled from 57 per 10,000 live births to an estimated 7 last year. Progress in the prevention and control of chronic diseases such as cancer, heart disease, diabetes, arthritis, and rheumatism is evident, and research in cancer, mental health, and dental conditions is moving forward.

President's Commission on Health Needs

The President's Commission on Health Needs of the Nation, established last December in the face of considerable opposition from the American Medical Association, has started a series of twenty-five panel discussions of various health problems to be participated in by commission members, special staff advisors, and nongovernment professional and lay leaders. Discussions on general practice, specialization, group practice, regional medical plans, promotion of health, rehabilitation, and prevention of disease were scheduled for April. Within the next few months other panels will take up rural health, hospital care, military medicine, industrial health, health of the aging, care of the chronically ill, child health, care of the mentally ill, training of medical personnel, medical research, prepayment plans for health care, public medical care (federal, state, and local), organization of government health agencies, dental care, and nursing care.

With Dr. Paul Magnuson as chairman, the commission has been instructed to study health problems in the United States and make recommendations about them this year.

Despite its opposition to establishment of the commission, based on its belief that the study is another maneuver to socialize the medical profession, the American Medical Association has agreed to make available to the commission various health and medical care statistics in its possession.

CONFERENCE IN ENDAURAL SURGERY AND AUDIOLOGY

The University of Texas Postgraduate School of Medicine will sponsor a conference in endaural surgery and audiology at the Texas Medical Center, Houston, July 16-19. The conference, under the direction of Drs. Fred R. Guilford and William K. Wright, will include lectures, clinical demonstrations, and supervised dissection by the students.

The course is designed for eye, ear, nose, and throat specialists. A registration fee of $25 and a $25 laboratory dissection fee are required. Advance registration is necessary and should be made with the Office of the Dean, The University of Texas Postgraduate School of Medicine, Hermann Professional Building, Houston 5.

Commission on Chronic Illness Moved

Headquarters of the Commission on Chronic Illness, which have been in Chicago since the commission was founded in 1949 by the American Medical Association, American Hospital Association, American Public Health Association, and American Public Welfare Association, will be moved to Baltimore on July 1. At that time, Dr. Dean W. Roberts, deputy director of the Maryland State Department of Health, will become director of the commission, succeeding Dr. Morton L. Levin, who has been on leave of absence from the New York State Department of Health to direct the work of the commission.

Coincident with the move to Baltimore will be the beginning of a survey of 13,000 persons in 4,000 families in Baltimore to study chronic disease and the needs of the chronically ill. This study is a companion to a previously announced study among the rural population in Hunterdon County, N. J.

In addition to the surveys, the commission will report on the status of state and local services and facilities for the chronically ill.

DALLAS SOUTHERN CLINICAL SOCIETY

Officers of the Dallas Southern Clinical Society were elected at the twenty-first annual spring clinical conference held March 17-20.

Dr. Karl B. King was named chairman of the executive committee and Dr. Cecil O. Patterson was elected president of the society. Other officers for the year include Drs. J. Morris Horn, vice-president; T. Haynes Harvill, secretary; Alvin Baldwin, Jr., treasurer; and J. Warner Duckett, director of clinics.

The 1953 conference will be held March 16 through 19 in the Baker and Adolphus Hotels.

TEXAS PUBLIC HEALTH ASSOCIATION

More than 500 persons attended the twenty-seventh annual meeting of the Texas Public Health Association held in Galveston, February 17-20. Officers elected at the meeting were H. E. Drumwright, Dallas, president; Dr. Roy G. Reed, Victoria, president-elect; Ed Riedel, Austin, first vice-president; Dr. S. W. Bohls, Austin, second vice-president; and Earle W. Sudderth, Dallas, executive secretary.

Hubert Shull, D.V.M., Texarkana, was elected to honorary life membership. The 1953 meeting was scheduled for February 15-18 in Galveston.

The program included papers presented before the health education, nurses, laboratory, vital statistics, sanitarians, engineers, clerical, and food and drug sections of the association.

POSTGRADUATE COURSE IN ORTHOPEDICS

The University of Texas Postgraduate School of Medicine and the Austin Chapter of the Texas Academy of General Practice are presenting a course on common orthopedic problems on the campus of the University of Texas, Austin, from March 24 through June 9.

Dr. Bruce M. Cameron is in charge of the course and instructors for the series of lectures include Drs. D. C. McKeever, F. O. McGehee, Frank F. Parrish, I. S. McReynolds, Arthur L. Glassman, Oscar O. Selke, B. F. Boylston, F. A. Bloom, E. T. Smith, and Dr. Cameron, all of Houston.

Consumptive people are likewise generally observed to be very quick, full of Spirit, hasty, and of a sharp ready Wit, and are commonly very impatient, and tenacious of the least Disrespect that is shewn them.... — Benjamen Marten (1720), Brit. J. Tuberc. & Diseases of the Chest, July, 1951.

LIBRARY SECTION

PACKAGE SERVICE

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Request for packages should be addressed "Library, Texas Medical Association, 700 Guadalupe Street, Austin, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Packages are allowed to remain in the hands of the borrower for 14 days.

ACCESSIONS

The following additions were made to the Library during April:

Reprints received, 866.

Journals received, 304.

Books received, 26.

Living in Balance, Caprio, The Arundel Press, Washington, D. C.

Structure and Function of the Membranaceous Sacs of the Labyrinth, Vilstrup, Ejnar Munksgaard, Copenhagen.

Modern Drug Encyclopedia, Howard, Drug Publications, Inc., New York.

Who's Who in America, 1952-1953, vol. 27, .A. N. Marquis Company, Chicago.

Allergic Pruritus, Its Dermatologic Management, Epstein, Bruce Publishing Company, St. Paul, Minn.

Histopathological Technic, Including a Discussion of Botanical Microtechnic, ed. 2, Krajian and Gradwohl, C. V. Mosby Company, St. Louis.

Office Endocrinology, ed. 4, Greenblatt; *Blood Transfusion in Clinical Medicine,* Mollison; *Clot Retraction,* Budtz-Olsen; *The Metabolic Response to Surgery,* Moore and Ball; *Harvey Lectures, Series XLV,* New York Academy of Sciences; *Diabetes and Pregnancy,* Reis, DeCosta, and Allweiss; *Antibiotics,* Florey; *Mind, Perception and Science,* Brain; *Doctors Differ, Studies in Contrast,* Charles C. Thomas, Springfield, Ill.

Surgery and the Endocrine System, Hardy; *Elementary Medical Statistics,* Mainland, W. B. Saunders Company, Philadelphia.

Surgical Gynecology, Handbook of Operative Surgery, Greenhill; *1951 Yearbook of Neurology and Psychiatry,* Mackay, editor, Yearbook Publishers, Chicago, Ill.

The Diagnosis of Nervous Diseases, ed. 10, Purves-Stewart and Drought; *Cowdry's Problems of Aging,* ed. 3, Lansing, editor; *Medical Disorders of the Locomotor System, Including the Rheumatic Diseases,* Fletcher; *Ear, Nose and Throat Diseases for the General Practitioner,* McKenzie; *The Quiet Art, A Doctor's Anthology,* Coope, Williams and Wilkins, Baltimore.

Handbook of Cardiology for Nurses, The Disease, The Patient, Modern Concepts of Treatment, Modell, Springer Publishing Company, New York.

The Fight Against Tuberculosis, An Autobiography, Pottenger, Henry Schuman, Inc., New York.

SUMMARY OF SERVICE

Local users, 56. Borrowers by mail, 59.
Local packages, 30. Packages mailed, 61.
Films loaned, 85.

MOTION PICTURE FILM LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in color, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be requested to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films in the hands of the borrower.

Request for films should be addressed to "Motion Picture Film Library, Texas Medical Association, 700 Guadalupe Street, Austin, Texas." A list of available films with descriptions, will be furnished on request.

The following films were loaned by the Library during the month of April:

Accent on Use (National Foundation for Infantile Paralysis)—Gonzales High School, Gonzales.

A.M.A. Newsreel (American Medical Association)—Littlefield Hospital and Clinic, Littlefield.

Anemias, The (Lederle Laboratories)—Hillcrest Hospital Staff Meeting, Waco.

Anesthesia, Low Spinal (Modified Saddle Block) in Obstetrics (Ciba Pharmaceutical Products)—Dr. George C. Bryant, Waco.

Anesthesia, Novocain, in Obstetrics (Winthrop-Stearns)—Dr. C. G. Goddard, Bastrop.

Anesthesia, Regional (Winthrop-Stearns)—Dr. C. G. Goddard, Bastrop.

Anesthesia with Vinethene (Merck and Company)—University of Texas Medical Branch, Galveston, and Dr. C. G. Goddard, Bastrop.

Appendicitis in Childhood (Mead Johnson)—Austin-Waller Counties Medical Society, Hempstead.

Appraisal of the Newborn (Mead Johnson)—Seton Hospital School of Nursing, Austin.

Aureomycin, The Versatile Antibiotic (Lederle Laboratories)—Dr. C. L. Curlee, Sinton, and Austin State Hospital, Austin.

Be Your Age (Metropolitan Life Insurance Company)—Galveston Rotary Club, Galveston.

Breast Cancer: The Problem of Early Diagnosis (American Cancer Society)—Ennis Municipal Hospital Staff, Ennis.

Breast Self-Examination (American Cancer Society)—East Harris County Chapter, Woman's Auxiliary to Harris County Medical Society, Baytown, and Bell County Health Unit, Temple.

Cancer: The Problem of Early Diagnosis (American Cancer Society)—Dr. John W. Tunnell, Taft.

Cardiovascular Anomalies, Congenital, Amenable to Surgery (Mead Johnson)—Southwestern Pre-Medical Association, Georgetown.

Chest Disease, Surgery in (British Information Services)—Hendrick Memorial Hospital, Abilene, and Lamar State College of Technology, Beaumont.

Cholecystectomy (Mead Johnson)—Dr. N. L. Schiller, Austin.

Cloud in the Sky (Texas Tuberculosis Association)—Pharr-San Juan-Alamo Schools, Pharr.

Coming Home (Texas Tuberculosis Association)—Baptist Brotherhood, Elgin.

D.D.T., The Story of (British Information Services)—Gonzales High School, Gonzales.

Diagnosis of Poliomyelitis (National Foundation for Infantile Paralysis)—McAllen Hospital Staff, McAllen.

Diphtheria and Croup (Lederle Laboratories)—St. Paul's Hospital School of Nursing, Dallas.

Dysmenorrhea, Primary (G. D. Searle and Company)—Dr. W. C. Nowlin, Littlefield.

Esophagogastrostomy, Supra-Aortic, for Carcinoma of the Mid-Portion of the Esophagus (Dr. Philip Thorek)—Dr. John W. Tunnell, Taft.

Eyelids, Surgery (Dr. Ray K. Daily)—Littlefield Hospital and Clinic, Littlefield.

Eyes, Your Children's (British Information Services)—Pharr-San Juan-Alamo Schools, Pharr.

Functional Anatomy of the Hand (National Foundation for Infantile Paralysis)—Dr. C. G. Goddard, Bastrop.

Gastro-Intestinal Cancer: The Problem of Early Diagnosis (American Cancer Society)—Dr. C. G. Goddard, Bastrop.

Health Is a Victory (American Social Hygiene Association)—Pharr-San Juan-Alamo Schools, Pharr.

Hemicolectomy for Carcinoma of the Right Side of the Colon (Dr. Philip Thorek)—Dr. John W. Tunnell, Taft; Dr. Will E. Watt, Austin; and Dr. F. Clay Weekley, Waco.

Hepatitis, Observations on (Mead Johnson)—Austin State Hospital, Austin.

Here's Health the American Way (American Medical Association)—1920 Study Club, Ranger.

Human Fertility, Studies In (Ortho Pharmaceutical Corporation)—Dr. George G. Wyche, Jr., Alice.

Human Sterility (Winthrop-Stearns)—Dr. George G. Wyche, Jr., Alice.

Hysterectomy (Mead Johnson)—Southwestern Pre-Medical Association, Georgetown, and Dr. George G. Wyche, Jr., Alice.

Immunization Against Infectious Diseases (Lederle Laboratories)—Mothers Club, Sulphur Springs, and Alpha Epsilon Delta, Baylor University, Waco.

Injuries, Athletic, Care and Prevention (Becton, Dickinson and Company)—Dr. E. P. Tottenham, Brenham.

Know for Sure (Texas State Board of Health)—Pharr-San Juan-Alamo Schools, Pharr.

Life Begins Again (British Information Services)—Gonzales High School, Gonzales.

Management of the Failing Heart (Varick Pharmacal Company)—Dr. George G. Wyche, Jr., Alice.

Megacolon, Total Colectomy with Ileoproctostomy for Hirschsprung's Disease (Dr. Philip Thorek)—Hillcrest Hospital Staff, Waco.

Middletown Goes to War (Texas Tuberculosis Association)—Baptist Brotherhood, Elgin.

Modern Nutrition (E. R. Squibb and Company)—Scott and White Memorial Hospital School of Nursing, Temple, and Austin State Hospital, Austin.

Normal Delivery (Mead Johnson)—Dr. M. G. Hutchins, Conroe.

Obstructive Laryngitis (Mead Johnson)—University of Texas Medical Branch, Galveston.

On Our Own (National Foundation for Infantile Paralysis)—Dr. C. L. Curlee, Sinton.

Once Upon a Time (Metropolitan Life Insurance Company)—Pharr-San Juan-Alamo Schools, Pharr.

Plain Facts (American Social Hygiene Association)—Pharr-San Juan-Alamo Schools, Pharr.

Polio—Diagnosis and Management (British Information Services)—Hendrick Memorial Hospital School of Nursing, Abilene.

Portacaval Shunt for Portal Hypertension (Dr. Philip Thorek)—Dr. S. P. Zeitlin, San Antonio.

Post-Poliomyelitis Paralysis, Operative Procedures (National Foundation for Infantile Paralysis)—Alpha Epsilon Delta, University of Texas, Austin.

Premature Infant, Care of (Mead Johnson)—Dr. M. G. Hutchins, Conroe.

Proof of the Pudding (Metropolitan Life Insurance Company)—Gonzales High School, Gonzales.

Ptosis, Operations for (Dr. Ray K. Daily)—Littlefield Hospital and Clinic, Littlefield, and University of Texas Medical Branch, Galveston.

Pyloric Stenosis, Congenital, Surgical Treatment (Dr. Philip Thorek)—Dr. F. Clay Weekley, Waco.

Question in Time (American Cancer Society)—1920 Study Club, Ranger.

Roentgen Pelvimetry (Mead Johnson)—Scott and White Memorial Hospital School of Nursing, Temple.

Scabies (British Information Services)—Littlefield Hospital and Clinic, Littlefield.

Skin Grafting of Extensive Burns (Eaton Laboratories)—Orgain Memorial Hospital, Bastrop, and Seton Hospital School of Nursing, Austin.

Splenic Flexure Carcinoma, Surgical Treatment for, with Solitary Liver Metastasis (Dr. Philip Thorek)—Dr. Will E. Watt, Austin.

Spontaneous Delivery (Mead Johnson)—Practical Nursing School, Denison, and Dr. M. G. Hutchins, Conroe.

Techniques of Injection (Becton, Dickinson and Company)—Practical Nursing School, Denison, and McKnight State Sanatorium, Sanatorium.

They Also Serve (American Medical Association)—Orgain Memorial Hospital, Bastrop.

Traitor Within (American Cancer Society)—Gonzales High School, Gonzales.

Tuberculosis in Childhood (Mead Johnson)—McKnight State Sanatorium, Sanatorium.

Uterosalpingography (E. Fougera and Company)—Rio Grande Valley Obstetric-Gynecologic Society, Raymondville.

Varicose Veins, The Treatment of (G. D. Searle and Company)—Dr. M. G. Hutchins, Conroe.

Varicose Veins and Their Complications (Becton, Dickinson and Company)—McAllen Hospital Staff, McAllen.

Vitamin A in Human Nutrition (Mead Johnson)—Austin State Hospital, Austin.

What Is Cancer? (American Cancer Society)—Littlefield Hospital and Clinic, Littlefield.

When Bobby Goes to School (Mead Johnson)—Fleming Hospital, Elgin, and Gonzales High School, Gonzales.

BOOK NOTICES

[1]Electrocardiographic Studies in Normal Infants and Children

ROBERT F. ZIEGLER, M. D., *Associate in Cardiology, In Charge of Section of Pediatric Cardiology, Henry Ford Hospital, Detroit. Cloth, 185 pages. $10.50. Springfield, Ill., Charles C. Thomas, 1951.*

This monograph presents a detailed analysis of a large series of electrocardiograms of normal infants and children. Elaborate tables and graphs have been constructed to show the normal range of intervals and complexes in each age group. The literature is summarized, and the text is well illustrated. An atlas of tracings is included to demonstrate the variety of typical patterns to be found at each age.

The book covers only briefly the basic principles of electrocardiography, which are the same regardless of the age of the patient. However, as the author emphasizes, there are certain important normal differences in the pediatric electro-

[1]*Milton R. Hejtmancik, M. D., Galveston.*

cardiogram with which the interpreter must be familiar. One is the relatively high R waves in leads from the right side of the precordium, which has been claimed as evidence of relative hypertrophy of the right ventricle. Another is the T wave inversion in the right and midprecordial leads, which may be due to the position of the heart in the thorax.

The statistical information summarized in this book should prove worth while in electrocardiographic interpretation.

[2]Brain Tumors of Childhood

HENRY M. CUNEO, M. D., *Assistant Clinical Professor of Neurological Surgery, and* CARL W. RAND, M. D., *Clinical Professor of Neurological Surgery, University of Southern California School of Medicine, Los Angeles. Vellum, 209 pages. $5.75. Springfield, Ill., Charles C. Thomas, 1952.*

This small volume represents a summary of the authors' experiences over the past decade with intracranial tumors encountered at the Children's Hospital in Los Angeles. Ten chapters are devoted to recognized types of brain tumors, and three other chapters deal respectively with eosinophilic granuloma of bone, infectious granulomas, and general considerations pertaining to diagnosis.

Presenting clinical features of the different types of tumors are emphasized. Historic information is presented briefly, basic pathologic correlations are made, methods of treatment are outlined without burdensome technical details, and final results are stated in a clear manner. Commendably, each chapter gives generally accepted facts with regard to a particular type of tumor; unsettled and controversial issues are held to a minimum. To support main discussions there are brief case reports and illustrations showing pathologic material as well as occasional photographs of patients or of roentgenograms.

Without satisfactory explanation vascular tumors and pituitary tumors are omitted from the book. The inference may be that such tumors happened not to occur in this particular series; yet it is the general experience to observe these tumors in childhood no less often than a pinealoma or a papilloma of the choroid plexus. In devoting twenty-one pages to the chapter on pinealoma and ten pages to the chapter on papilloma of the choroid plexus the authors have distorted the literary balance of their data, not only in relationship to the omissions just cited, but also in contrast to the seventeen pages given to astrocytoma and eleven pages given to ependymoma, both of which are much more important tumors.

The book is a worth-while contribution from the clinical viewpoint. In addition to the pediatrician, the neurologist, and the neurosurgeon, any physician whose field of endeavor includes the diagnosis of diseases of childhood will benefit by reference to it.

[3]The Clinical Use of Fluid and Electrolyte

JOHN H. BLAND, M. D., *Assistant Professor of Medicine, University of Vermont College of Medicine. Paper, 259 pages. $6.50. Philadelphia, W. B. Saunders Company, 1952.*

This is the second in a series of monographs in which the publishers are attempting to combine two important factors in medical publication, namely, good authorship and absence of excessive expense of finished product. Here they have done both in a way that should give them justifiable pride. Beginning with an introductory chapter the author clearly states the underlying principles of the subjects involved. He makes a convincing argument for the use of milliequivalents instead of percentages as units of physiologic and chemical measurement. Following the introductory chapter the discussion is divided into twelve parts, important among which are Water and Electrolyte in Congestive Heart Failure; Water and Electrolyte in Pediatric Patients; Fluid and Electrolyte in the Aged and Aging; Parenteral Fluids in Surgical Patients; Fluid and Electrolyte in Renal Disease; ACTH and Cortisone; Physiologic Effects in Body Fluid and Electrolyte; and Behavior of Body Water and Electrolyte in Shock, Burns, Crush and Blast Injury, Roentgen Irradiation and Exposure to Cold and Other Stress.

The book is well written and easy to read. The diagrams are excellent and easily understood. The type of page and printing enables this monograph to carry much more information than the mere statement that it has 259 pages would indicate. The paper is good and the printing is clear. The book is particularly free of typographical and grammatical errors. The cover is pleasant to the eye. Each chapter is followed by a satisfactory bibliography. It is the thought of the reviewer that the value of this book would be enhanced by the inclusion of an appendix.

Comparative Physiology of the Thyroid and Parathyroid Glands

WALTER FLEISCHMANN, M. D., Ph. D., *Veterans Administration Hospital, Fort Howard, Md.; Instructor in Pediatrics, Johns Hopkins University School of Medicine, Baltimore. Lexide, 78 pages. $2.25. Springfield, Ill., Charles C. Thomas, 1951.*

[4]Fluid Balance—A Clinical Manual

CARL A. MOYER, M. D., *Professor of Surgery, Washington University School of Medicine, St. Louis. Cloth, 173 pages. $3.75. Chicago, Year Book Publishers, 1952.*

This small, handy volume is aptly subtitled "A Clinical Manual." The author presents in concise form his ideas about the diagnosis and treatment of fluid and electrolyte imbalances.

A short introductory chapter of historical backgrounds is of considerable interest. Fundamental physiology which is pertinent is presented and chemical terms are defined as a basis for consideration of abnormal physiology and its correction. Disturbances of body fluid volume, equilibrium, and content are clearly presented. The recognition of each type of disturbance is discussed with emphasis on the clinical picture. The minimum necessary laboratory procedures are indicated and evaluated. Diagnosis and treatment of such disturbances are illustrated with case histories.

This book presents in compact form a comprehensive scheme for the diagnosis and treatment of fluid and electrolyte disturbances which seems very practical. It should be of great value as a working guide in everyday practice.

[5]Surgical Care

ROBERT ELMAN, M. D., F.A.C.S., *Professor of Clinical Surgery, Washington University School of Medicine; Director of Surgical Service, H. G. Phillips Hospital, St. Louis. Cloth, 560 pages. $8. New York, Appleton-Century-Crofts, 1951.*

Dr. Elman has presented an excellent treatise on the physiologic care of the surgical patient. He comprehensively reviews all the important phases of the preoperative preparation of the surgical patient. Complications in the postoperative patient are completely discussed. Throughout these chapters, basic physiology is fully covered.

Surgeons will find the discussions on fluid therapy very practical. The chapter on "psychogenic factors in surgery" is interesting.

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[2]*John E. Skogland, M. D., Houston.*
[3]*Charles F. Carter, M. D., Dallas.*
[4]*John F. Pilcher, M. D., Corpus Christi.*
[5]*Norman Duren, M. D., Beaumont.*

Dr. Elman has written a complete physiologic guide in the care of the surgical patient. He did not make the usual mistake of trying to include a synopsis on surgery.

This is the book many surgeons have long awaited. The surgical resident will find much valuable assistance in it. Any physician engaged in the care of the injured or surgical patient will find help and stimulus in Dr. Elman's book.

[6]Pathological Histology

ROBERTSON F. OGILVIE, M. D., D. Sc., *Senior Lecturer in Pathology and Assistant in Forensic Medicine, University of Edinburgh; Senior Pathologist, Royal Infirmary, Edinburgh. Fourth edition. Cloth, 494 pages. $8. Baltimore, Williams and Wilkins Company, 1951.*

This textbook is suited for the undergraduate student in pathology and also the graduate who wishes to review the basic principles of pathology. The arrangement of the material follows the general pattern of describing processes such as degenerations and inflammations in the early portion of the book, and then in the latter part, the pathologic conditions of the systems are described. There is usually a macroscopic and a microscopic description of each disease process included. There are 295 excellent photomicrographs in color which excellently represent the appearance of diseased tissue as seen in stained section.

The book does not go into the details necessary for the pathologist in his daily work. It would none the less be an asset to any pathologist's library in that by means of this book he could illustrate pathology to the rest of a hospital staff.

Surgical Measures in Hypertension

REGINALD H. SMITHWICK, M. D., *Professor of Surgery and Chairman of the Department of Surgery, Boston University, School of Medicine; Surgeon-in-Chief, Massachusetts Memorial Hospital, Boston. Lexide, 95 pages. $3. Springfield, Ill., Charles C. Thomas, 1951.*

Cellular Changes with Age

WARREN ANDREW, Ph. D., M. D., *Professor of Anatomy and Chairman of Department, George Washington University School of Medicine, Washington, D. C. Lexide, 74 pages. $2.50. Springfield, Ill., Charles C. Thomas, 1952.*

[7]The Normal Cerebral Angiogram

ARTHUR ECKER, M. D., Ph.D. (Neurology), *Surgical Neurologist, Syracuse, N. Y. First edition. Cloth, 184 pages. $6.50. Springfield, Ill., Charles C. Thomas, 1951.*

This well-produced book contains a great fund of information for all physicians interested in cerebral angiography. For those concerned more with technical aspects of injection and radiographic procedure, there are details of various techniques dealing with direct percutaneous angiography of the carotid and vertebral arteries, as well as the indirect method of visualizing the vertebral circulation. (By an injection through the right common carotid artery with occlusion of the carotid above the needle and of the brachial in the arm, the opaque material passes down the carotid artery into the subclavian and up into the right vertebral artery.)

The interpretation of the films naturally occupies the larger part of the book. Illustrative radiographs are clearly reproduced. In rather elaborate detail the author presents angiograms made in a variety of projections which may well have worthy application under special circumstances. Particularly valuable would seem to be the method of bilateral filling of cerebral arteries through a unilateral carotid injection and compression of the opposite vessel. One may then compare the arteries on the normal side with those in the suspected pathologic area.

Several points of question arose in connection with this book. The author states that bilateral filling of the anterior and middle cerebral arteries suggests occlusion of the opposite internal carotid artery (p. 94), but in stereoscopic lateral radiographs made "an instant" apart, figure 58 shows double filling of the anterior cerebral and figure 62 double filling of both posterior and anterior cerebral arteries, while in their mates (fig. 57 and 61, respectively) these vessels are visualized only unilaterally. Evidently it is only the bilateral filling of the middle cerebral artery which indicates occlusion of the contralateral carotid.

The sketch in figure 140b is supposed to show vascular changes associated with platybasia, but those depicted resemble rather the Arnold-Chiari malformation, while the bony configuration of basilar impression is not clearly delineated. Also, in cases 186 and 174 (fig. 68 and 69) the reader might wish to be informed as to the grounds by which a parasagittal tumor was excluded and why the hydrocephalus in the latter case was assumed to be "atrophic."

More detail in the legends for the figures or in specific text references might have clarified the interpretation of the excellent and generally clear illustrations. Many of the figures seem to be reiterative and could have been omitted without impairing clarity of presentation. However, detail in presentation of the subject matter of this volume is eminently desirable, and the book should be in the hands of everyone who deals directly with procedures of arterial encephalography.

[8]The Child in Health and Disease

CLIFFORD G. GRULEE, M. D., *Rush Professor of Pediatrics, University of Chicago, and Chief Editor,* American Journal of Diseases of Children; *and* R. CANNON ELEY, M. D., *Assistant Clinical Professor of Pediatrics, Children's Hospital, Children's Medical Center, Harvard University Medical School, Boston. Second edition. Cloth, 1,208 pages, $15. Baltimore, Williams and Wilkins Company, 1952.*

This is an excellent book for students, pediatricians, and the general practitioner. The sections on the circulatory system, respiratory system (especially about tonsils and adenoids), diseases of the central nervous system, allergy, and miscellaneous subjects are noteworthy.

This book has a definite place in every pediatrician's library.

[9]A Text-Book of Medicine

Edited by E. NOBLE CHAMBERLAIN, M. D., M. Sc., F.R.C.P., *Senior Lecturer in Medicine, University of Liverpool; Senior Physician, Royal Southern Hospital, Liverpool; Physician in Charge, Medical Unit, Sefton General Hospital, Liverpool. Cloth, 930 pages. $10. Baltimore, Williams and Wilkins Company, 1951.*

This treatise is written for the student but is not intended to be a complete text insofar as medicine is concerned. In my opinion it is adequately illustrated and the subject matter is so presented that the student should be able to use the book in conjunction with his lectures and clinical work to prepare himself well for his examinations.

[6]*Lloyd R. Hershberger, M. D., San Angelo.*
[7]*Paul M. Levin, M. D., Dallas.*
[8]*W. Price Killingsworth, M. D., Port Arthur.*
[9]*Lester Conrad Feener, M. D., El Paso.*

The approach is clinical and no attempt is made to stress the rarities but emphasis has been made on the commoner diseases. This book will serve a useful purpose, not only to the student, but to the practitioner of medicine who wishes a short, concise clinical presentation.

[10]The Essentials of Modern Surgery

Edited by R. M. HANDFIELD-JONES, M. C., M. S., F.R.C.S., *Senior Surgeon to St. Mary's Hospital; Lecturer in Surgery, St. Mary's Hospital Medical School; and Examiner in Surgery, University of London; and* SIR ARTHUR E. PORRITT, M. Ch., F.R.C.S., *A Surgeon to His Majesty the King; Surgeon, St. Mary's Hospital and Royal Masonic Hospital; and Examiner in Surgery, University of Cambridge. Fourth edition. Cloth, 1,233 pages. $11. Baltimore, Williams and Wilkins Company, 1951.*

Although there is no statement as to the intention of the fourteen authors who have contributed to this volume, a great variety of subjects are discussed. In general, it would appear that this volume might be an encyclopedic type of reference book for students, but not very useful to those trained in the fields of surgery discussed. There is no bibliography, which the reviewer feels represents a serious omission. Probably too many subjects are discussed in the book for its size and too many specialties are included. The paper and the printing, as well as the illustrations, are excellent.

The section on burns recommends the treatment by coagulation of the burned area using both tannic acid and silver nitrate. This does not represent a consensus at present of the proper treatment of burns. The methods of pressure dressing and open air treatment are not mentioned.

The reviewer does not agree with the advice on page 191 that "in ordinary cases in which there has been no interference with the intestinal canal and there is no fear of peritonitis a simple enema should be given on the evening of the day following operation and repeated the next day. On the third evening an aperiant is administered and a saline draught in hot water given the following morning." This seems to be an unusual attention to the function of evacuation, which under ordinary circumstances spontaneously arranges itself.

It is interesting that in the treatment of acute diffuse or generalized peritonitis, on page 570, the Fowler's position is still recommended and, where indicated, a catheter via the nose to aspirate the stomach contents at half-hourly intervals. This method of therapy is not entirely conventional, since Fowler's position as usually practiced is not adequate for the pooling of secretions in the pelvic peritoneal area, and such a position interferes with the venous return of the lower extremity and probably favors deep venous thrombosis. Certainly one would recommend a continuous suction for drainage of the gastrointestinal tract in the presence of ileus.

In the section on the etiology of acute cholecystitis the bacterial infection aspect of the mechanism of acute cholecystitis is discussed, rather than emphasizing that in the great majority of cases the mechanism of acute cholecystitis is that of a chemical cholecystitis on the basis of obstruction of the cystic duct, usually with a stone.

The reviewer feels that the section on the pancreas, beginning on page 738, is incomplete, particularly in regard to the modern concepts of acute and chronic pancreatitis with complications and the necessity for surgical therapy in chronic relapsing pancreatitis.

In general, the book is well written and the foregoing comments probably represent variations in opinion between British and American literature on certain aspects of the subjects discussed, and none of the statements made should in any way detract from the prestige and acknowledged authority of the contributors to this volume.

[10]*LeRoy J. Kleinsasser, M. D., Dallas.*

[11]Diseases of the Ear, Nose, and Throat

GEORGES PORTMANN, M. D., *Professor of Oto-Rhino-Laryngology and Dean of the School of Medicine and Pharmacy, University of Bordeaux; Surgeon of the Hospital of Tondu, Bordeaux; Surgeon of the Hospital Leopold Bellan, Paris. Cloth, 713 pages. $20. Baltimore, Williams and Wilkins Company, 1951.*

The primary purpose of this book as given by the author in his preface is to describe "with precision all the procedures of clinical examination of the ear, nose, and throat patient." Each of the five subjects (ear; nose; mouth and pharynx; larynx, trachea, and bronchi; and esophagus) are discussed under four chapters with the following headings: anatomy, physiology, indirect examination, and direct examination. The last two chapters consist of a discussion of laboratory methods in otolaryngology, one chapter on tests to be done on the diseased organ or its pathologic products (pus, secretions, sputum, exudates, and solid material) and the other on tests of a general nature (blood, urine, and cerebrospinal fluid).

The entire book deals only with the procedure of making a correct diagnosis of an otolaryngologic problem, based on an understanding of the anatomy, pathology, and physiology of the organ involved, and the results of the complete examination of the part, including pertinent laboratory procedures. There is no mention of treatment or prognosis.

Anatomy is dealt with in great detail and includes many excellent illustrations—gross and microscopic as well as diagrammatic. The illustrations are the best part of the book, and many of them will be new to students of American texts. There are many good copies of sinus and mastoid roentgenograms with anatomic landmarks shown by accompanying labeled diagrams.

The book is intended primarily for students of the specialty of otolaryngology or for qualified specialists as a reference book. Candidates for the board examination in otolaryngology will find it useful in reviewing the basic sciences.

[12]Textbook of Refraction

EDWIN FORBES TAIT, M. D., Ph. D., *Associate Professor of Ophthalmology, Temple University School of Medicine; Attending Surgeon (Ophthalmology), Temple University and Montgomery Hospitals, Philadelphia. Cloth, 394 pages. $8. Philadelphia, W. B. Saunders Company, 1951.*

A more appropriate title for this book would have been "Textbook of Refraction and Neuromuscular Abnormalities" because fully half of the book is devoted to the extra-ocular muscle disorders. As the name implies, the book is intended primarily as a text for postgraduate students in ophthalmology and should be useful to such students provided they have access to other books containing material on geometric and physiologic optics, for such material has been omitted from this book.

The author undoubtedly has had years of experience in the teaching and practice of refraction, and his book is liberally sprinkled with opinions and findings based on his own research. In addition there is the usual material found in any text on refraction.

The order of presentation of subject matter is unique in that the material on ocular muscle disorders is presented first and the technique of refraction is in the last part of the book. The first 100 pages contain material of a general nature in-

[11]*Robert W. Osborn, M. D., McAllen.*
[12]*W. G. Morrow, Jr., M. D., El Paso.*

tended to acquaint the student with the terms used in the practice of refraction.

This book contains approximately 400 pages of readable material, printed on pages 6 by 10 inches, is well illustrated with charts, tables and pictures, most of the latter being original, and is recommended as a good text for the postgraduate student.

Causalgia

FRANK H. MAYFIELD, M. D., *Assistant Professor of Clinical Surgery, College of Medicine, University of Cincinnati; Attending Neurological Surgeon, Bethesda Hospital, Christ Hospital, Deaconess Hospital, Good Samaritan Hospital, St. Francis Hospital, and Jewish Hospital, Cincinnati. Cloth, 57 pages. $2.25. Springfield, Ill., Charles C. Thomas, 1951.*

[12]**Antibiotic Therapy**

HENRY WELCH, Ph. D., *Director, and* CHARLES N. LEWIS, M. D., *Medical Officer, Division of Antibiotics, Food and Drug Administration, Federal Security Agency of the United States Government. Cloth, 549 pages. $10. Washington, D. C., Arundel Press, 1951.*

The book is well written and in an entertaining style. Physically, it is so divided that quick reference is possible. The introduction by Chester Keefer summarizes the book. A concise bibliography of the discoverer of each antibiotic precedes the discourse on the antibiotic. The section on each drug gives process of manufacture, pharmacology, toxicology, medications, and contraindications for its use. This is followed in the same chapter by the various forms in which the medicine is made available by the manufacturer. The last portion of the book deals with specific illnesses and the use of various antibiotics in each. The book is a worth-while aid to a busy doctor.

[14]**Clinical and Roentgenologic Evaluation of the Pelvis in Obstetrics**

HOWARD C. MOLOY, M. D., M. Sc., *Assistant Clinical Professor of Obstetrics and Gynecology, College of Physicians and Surgeons, Columbia University, and The Sloane Hospital for Women. Paper, 119 pages. $2.50. Philadelphia, W. B. Saunders Company, 1951.*

This book, in the reviewer's opinion, is the most useful monograph on the clinical and roentgenologic evaluation of the pelvis which has been published in recent years. It is concise and complete and should prove helpful to the obstetrician as well as to the general practitioner doing occasional deliveries. The book is recommended to all physicians who do any deliveries.

[15]**Physical Medicine and Rehabilitation for the Clinician**

Edited by FRANK H. KRUSEN, M. D. *Cloth, 357 pages. $6.50. Philadelphia, W. B. Saunders Company, 1951.*

Dr. Frank Krusen, dean of physical medicine and rehabilitation, has edited a series of contributions on physical medicine and rehabilitation by leading specialists who may be considered experts in their respective fields. The result is a closely organized textbook presenting an up-to-date discussion of the latest developments, practices, and techniques of this specialty. Each discussion is complete but not wordy. No space is wasted on practices that have come into disuse. Following the plan of conciseness, Krusen has omitted the discussion of numerous opinions and theories presented in his former book "Physical Medicine." Instead, only the generally accepted theories and proved techniques are discussed. This allows quicker reading and prevents confusion for the reader inexperienced in physical medicine.

The 370 pages of the book are divided into four major sections dealing with (1) therapeutic applications of physical agents and procedures, (2) diagnostic applications of physical agents and procedures, (3) clinical aspects of physical medicine and rehabilitation, and (4) fundamentals of anatomy, therapeutic exercise, and physiology as related to physical medicine and rehabilitation.

The book is well indexed, and references are listed at the end of each chapter. Each topic is covered completely in its chapter so that the book may be used for reference with little need of thumbing through the book for related material.

The book undoubtedly offers the best coverage of the fields of physical medicine and rehabilitation of any book now available. Those physicians who desire a general orientation in physical medicine and rehabilitation will find the style easy to read and the material interestingly presented. All physicians, medical students, and therapists will find the book to be a professional aid.

Thyroid Function and Its Possible Role in Vascular Degeneration

WILLIAM B. KOUNTZ, M. D., *Assistant Professor of Clinical Medicine, Washington University School of Medicine; Director of Clinical Services, Division of Gerontology, Washington University School of Medicine and the St. Louis City Infirmary Hospital; Consulting Physician, Barnes Hospital and Lutheran Hospital, St. Louis. Lexide, 55 pages. $2.25. Springfield, Ill., Charles C. Thomas, 1951.*

[16]**The Pathogenesis of Tuberculosis**

ARNOLD R. RICH, M. D., *Baxley Professor of Pathology, Johns Hopkins University School of Medicine, and Pathologist-in-Chief, Johns Hopkins Hospital, Baltimore. Second edition. Cloth, 988 pages. $15. Springfield, Ill., Charles C. Thomas, 1951.*

This volume is a portrayal of our knowledge of the work done "to understand the disease tuberculosis and the factors which influence its progession or arrest." The fields of clinical medicine, pathology, bacteriology, immunology, roentgenology, epidemiology, and genetics have all contributed. No one can doubt that the author has exhausted all available sources for information on the subject. The pros and cons of apparently every conceivable phase of the way the tubercle bacillus behaves in the human being (and other animate things such as cattle, guinea pigs, and fowls) are presented. Few questions are settled with finality, as most working clinicians would prefer, but stimulating quests for further knowledge pervade every chapter.

Present knowledge of the pathogenesis of tuberculosis is in this book. Emphasis is on allergy and immunology. It is exceptionally well printed on good paper.

Cardiac Pain

SEYMOUR H. RINZLER, M. D., F.A.C.P., *Adjunct in Medicine and Cardiovascular Research Unit, Beth Israel Hospital; Instructor in Rehabilitation, New York University College of Medicine; Associate Visiting Physician, Bellevue Hospital, New York City. Lexide, 112 pages. $3.75. Springfield, Ill., Charles C. Thomas, 1951.*

[12]*A. L. Delaney, M. D., Liberty.*
[14]*Frank W. Hudgins, M. D., Lubbock.*
[15]*Oscar O. Selke, Jr., M. D., Houston.*
[16]*Sim Hulsey, M. D., Fort Worth.*

[17]**Introduction to Medical Science**

JULIUS JENSEN, Ph. D. (In Medicine), M.R.C.S. (England), L.R.C.P. (London), *formerly Assistant Professor in Clinical Medicine, Washington University; and* HENRY W. NOLLER, M. D., *Associate, St. Luke's Hospital; Physician, St. Luke's Hospital School of Nursing, St. Louis. Cloth, 518 pages. $5.75. St. Louis, C. V. Mosby Company, 1952.*

The authors state in the preface: "This book is planned for the course in Introduction to Medical Science. It builds on the foundation of physical and biological sciences, nutrition, materia medica, the social sciences, and nursing arts which the student has had or is having parallel with this course. It should lay the foundation for study in all clinical fields. The student, therefore, needs to use a scientific background to understand this subject; reference must be made constantly to textbooks and reference books on these basic subjects."

The information in this book impresses me as suitable for orientation for students in any of the fields of medicine covered. Almost every aspect of medicine is mentioned and the information is accurate but necessarily brief.

[17]*V. C. Baird, M. D., Houston.*

Epileptic Seizure Patterns

WILDER PENFIELD, M. D., D. Sc., F.R.C.S., *Professor of Neurology and Neurosurgery, McGill University; Director, Montreal Neurological Institute, Montreal; and* KRISTIAN KRISTIANSEN, M. D., *Assistant Surgeon, in charge Neurosurgery, Oslo City Hospital, Oslo, Norway. First edition. Cloth, 96 pages. $3. Springfield, Ill., Charles C. Thomas, 1951.*

ORGANIZATION SECTION

AMERICAN MEDICAL ASSOCIATION

Annual Meeting in Chicago

When the American Medical Association meets in Chicago June 9 through 13 for its one hundred and first annual meeting, many Texans will be actively participating in the program and activities of the councils, committees, and House of Delegates.

Texas, which will be represented in the House of Delegates by six physicians, will be exceeded in representation by only five other states (California, Illinois, New York, Ohio, and Pennsylvania) and will be equaled by Massachusetts and Michigan, which also have six delegates. The Texas delegates to the A.M.A. include Drs. T. C. Terrell, Fort Worth; B. E. Pickett, Sr., Carrizo Springs; J. B. Copeland, San Antonio; Allen T. Stewart, Lubbock; John K. Glenn, Houston; and Robert B. Homan, Jr., El Paso. Other Texans in the House of Delegates will be Drs. Everett C. Fox, Dallas, representing the Section on Dermatology and Syphilology of the A.M.A.; Charles T. Stone, Galveston, representing the Section on Internal Medicine; and F. J. L. Blasingame, Wharton, member of the Board of Trustees.

Serving in other capacities are Dr. Rex E. Van Duzen, Dallas, vice-chairman of the Section on Urology, Dr. James A. Greene, Houston, member of the executive committee of the Section on Experimental Medicine and Therapeutics, and Dr. Alvis E. Greer, Houston, member of the executive committee of the Section on Diseases of the Chest.

Several Texas physicians also will participate in the scientific meetings. Dr. Michael E. DeBakey, Houston, member of the Council on Scientific Assembly, will preside at the opening general scientific meeting June 9 and will present a paper before the Section on Surgery for which he serves on the executive committee. The paper is co-authored with Drs. John Heaney and Oscar Creech, Houston. Other Texans to present papers before scientific sections or who are co-authors of such papers include Drs. C. T. Stone, Galveston; Edwin L. Rippy, Dallas; Paul A. Campbell, Randolph Field; Boen Swinney, San Antonio; W. K. Noell, Randolph Field; Duane A. Schram, Gonzales; James W. Hendrick, San Antonio; Clyde A. Stevenson, Temple; and Ellard M. Yow, Houston.

Discussing papers before the scientific sections will be Drs. D. Truett Gandy, Houston; Leslie M. Smith, El Paso; James A. Greene, Houston; Oliver W. Suehs, Austin; F. J. Frese, Randolph Field; Mary Ruth Jackson, Dallas; and F. A. D. Alexander, McKinney. Texas doctors also will have displays in the scientific exhibit section.

Also participating in the activities in Chicago will be several women from Texas who will be attending the Woman's Auxiliary meeting held concurrently with the A.M.A. annual meeting.

Participation by Texans does not cease there. Many members of the American Medical Association from this state will be in Chicago for the various convention programs and entertainment. Registration will begin June 8 on Navy Pier, where most of the convention's scientific activities will take place. Other places to be used during convention for meetings will be the Sheraton Hotel, Thorne Hall of Northwestern University, and the Palmer House, where the House of Delegates will convene.

Of special interest is the meeting of the American Physicians Art Association at which some of the organization's 4,000 members will display their work. Also, persons attending the Chicago meeting are urged and invited to visit the headquarters of the American Medical Association, where guides will be available daily for tours.

The American Medical Golfing Association will have its tournament the opening day of the meeting and trophies will be awarded. All male members of the A.M.A. are invited to become fellows of the American Medical Golfing Association and participate in the tournament.

Members and fellows of the A.M.A. who wish to register early may obtain advance registration cards by writing the Advance Registrations Department, American Medical Association, 535 North Dearborn Street, Chicago 10. Presentation of the advance registration cards at the registration bureau will enable the physician to be registered immediately and to receive an official program and badge.

A short course in basic electrocardiography will be presented by the American Medical Association during the week prior to the Chicago annual session. Electrocardiologists from midwestern and southern universities will serve as instructors and any A.M.A. member is eligible to attend the series of free lectures which will emphasize the part of the electrocardiogram in diagnosis and management of heart disease. Since seating capacity is limited, advance registration is necessary, Dr. Paul L. Wermer of the A.M.A. Committee on Research, has announced.

Two coast-to-coast telecasts of the program and exhibits at the A.M.A. annual meeting will be carried over the N.B.C. television network June 10 and on another date to be announced later. The telecasts, sponsored by Smith, Kline, and French Laboratories in cooperation with the A.M.A., will bring to the doctor and the patient at home the scientific and educational program of the 1952 annual session.

COUNTY SOCIETIES

Angelina County Society

February 13, 1952

Allen T. Stewart, Lubbock, President of the Texas Medical Association, was guest speaker at a meeting of the Angelina County Medical Society held February 13 in Lufkin.

Other speakers were R. Kenneth Arnett, Lufkin, president of the Angelina County Medical Society, and L. C. Heare, Port Arthur, councilor of the Tenth District.

Austin-Waller Counties Society

February 12, 1952

The Austin-Waller Counties Medical Society and Auxiliary held a dinner meeting and program February 12 in the home of Dr. and Mrs. H. E. Roensch, Bellville.

Raymond O. Dart, director, Houston Regional Blood Center of the American Red Cross, discussed the functioning of mobile bloodmobiles and the society approved the unit for the collection of blood in Austin and Waller Counties. Also on the program were N. B. Powell, Houston, who spoke on urologic problems; and E. K. Doak, Houston, whose topic was, "Pains in the Chest Simulating Heart Disease."

Bell County Society

April 8, 1952

(Reported by E. D. McKay, Secretary)

Some Psychiatric Principles in the Practice of Medicine (telephone broadcast)—Hamilton Ford, Galveston, chairman; and Titus Harris, Galveston; Alfred Hill, San Antonio; Warren Brown, Houston; Earl Sellers, Abilene; and J. E. Robertson, Dallas, panel participants.

The Bell County Medical Society met in regular session in Temple on April 8 with fifty-three members and guests present. Accepted to membership upon application was Ernest William Keil, Temple, and by transfer from Olmsted-Fillmore-Houston-Dodge Counties Medical Society, Minnesota, James C. Stinson, Temple.

F. W. Howell, chairman of the public relations committee, reported that the following suggestions had been made: (1) If the board approves the system of emergency call service, reported on at the previous meeting, and there be such a need for this service, a call system used by both hospitals could be set up whereby clinical assistants could see the patients. (2) The number of general practitioners in Temple should be increased. (3) The hospital affiliations and staff should be increased. (4) A blind "number" which the public could call to get in touch with a doctor should be established in the telephone directory. (5) Names of doctors who make night emergency calls under this system should be listed in the telephone directory.

A. C. Scott, Jr., recommended that the society take action on the matter of making physicians available for night calls. He stated that Scott and White Hospital could supply three clinical assistants. The president appointed a committee consisting of a representative of King's Daughters Hospital, a representative of Scott and White Hospital, and three practicing physicians in Temple, to study the problem of night emergency calls for patients who cannot obtain their regular physician. This committee is to report at the next meeting.

The scientific program listed above was presented.

Bexar County Society

March 25, 1952

(Reported by Frank M. Posey, Secretary)

Disability Evaluations—M. H. Morris and David R. Oliver, San Antonio.

The Bexar County Medical Society met March 25 in San Antonio with fifty members present. L. B. Reppert was program chairman, and the program outlined above was given. Refreshments were served afterward.

DeWitt County Society

February 20, 1952

Acute Head Injuries—Ralph Munslow, San Antonio.
Appliances used in the Treatment of Head Injuries—Herbert Schubert, Temple.

The above outlined program was presented at the regular meeting of the DeWitt County Medical Society held in Yorktown on February 20.

L. W. Nowierski, Yorktown; John H. Barth, Yorktown; and Gillett Burns, Cuero, were on the program committee.

Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Society

February 21, 1952

Cancer of the Lip—Philip S. Kline, San Antonio.
Peptic Ulcers—Bromley S. Freeman, Houston.

The Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Medical Society and Auxiliary met February 21 at the Veterans Administration Hospital, Big Spring. L. B. Andrew, manager of the hospital, was host at the dinner meeting. Clyde E. Thomas, Jr., Big Spring, president of the society, was in charge of the business meeting. The above scientific program was presented.

Members of the auxiliary met in the library, where Mrs. Ann LeFever gave a book review.

Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson Counties Society

April 15, 1952

(Reported by Malcolm H. Wyatt, Secretary)

Fractures of the Tibia—Charles Sadler, Amarillo.

The Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson Counties Medical Society met on April 15 in Borger. After the above named paper was presented, several members of the society participated in a discussion.

Dr. Nicholson reported on the recent scientific assembly of the American Academy of General Practice which he attended in Atlantic City.

The physicians and their wives met for dinner, after which a dance program was presented by the Rice Studio of Dance.

Hamilton County Society

The Hamilton County Medical Society reelected W. F. Hafer and H. V. Hedges, both of Hico, to serve as president and secretary of the Hamilton County Society at a recent meeting in Hamilton.

Hardeman-Cottle-Foard-Motley Counties Society

April 8, 1952

(Reported by Ben W. Gilliotte, Secretary)

Members of the Hardeman-Cottle-Foard-Motley Counties Medical Society met at Quanah on April 8 to participate in the telephone broadcast sponsored by the Texas Medical Association.

After the program a discussion was held and the members voted to write the Association expressing approval of the series of postgraduate telephone broadcasts and requesting that similar programs be planned in the future.

J. F. Hughes, Spur, was elected as alternate delegate to the House of Delegates of the Texas Medical Association. The society nominated A. C. Traweek, Sr., Matador, for the General Practitioner of the Year award.

Kerr-Kendall-Gillespie-Bandera Counties Society

March 10, 1952

(Reported by Russell E. Guill, Secretary)

Cardiac Surgery—Sam J. Greer, Jr., San Antonio.

The above program was presented at the March 10 meeting of the Kerr-Kendall-Gillespie-Bandera Counties Medical Society held in Fredericksburg. Dr. Greer presented slides with his lecture and an open discussion followed.

Lamar County Society

April 8, 1952

(Reported by J. R. Kelsey, Jr., Secretary)

Sixteen members and one guest, Leon Gilbert of Honey Grove, met April 8 to hear the postgraduate telephone broadcast presented by the Texas Medical Association.

Medina-Uvalde-Maverick-Val Verde-Edwards-Real-Kinney-Terrell-Zavala Counties Society

March 25, 1952

(Reported by C. R. Sutton, Jr., Secretary)

Diseases of the Eye—Russell T. Snip, San Antonio.

Mechanical Small Bowel Intestinal Obstruction—John V. Goode, Dallas.

Management of the Prostatic Patient with Reference to Carcinoma—William E. Chase, San Antonio.

Guest speakers presented the program outlined above at the meeting of the Medina-Uvalde-Maverick-Val Verde-Edwards-Real-Kinney-Terrell-Zavala Counties Medical Society held in Eagle Pass on March 25.

Nolan-Fisher-Mitchell Counties Society

March 5, 1952

Sam A. Loeb, Sweetwater, was elected president of the Nolan-Fisher-Mitchell Counties Medical Society in San Angelo on March 5.

Other officers are Harry A. Logsdon, Colorado City, vice-president; Frank Barker, Sweetwater, secretary-treasurer; and L. H. Rudd, Colorado City, censor.

Orange County Society

March 4, 1952

Texas Medical Association's public relations program and the establishment and functioning of local grievance committees were discussed at the meeting of the Orange County Medical Society in Orange on March 4.

Officials of the Association who were guests included L. C. Powell, Beaumont, vice-president of the Texas Medical Association; and L. C. Heare, Port Arthur, councilor for the Tenth District. Another guest was T. A. Fears, Beaumont, representing the Texas Medical Committee for Good Government.

Potter County Society

April 7, 1952

(Reported by Mrs. Cassie Atherton, Executive Secretary)

Surgical Treatment of Coronary Artery Diseases—Claude S. Beck, Cleveland, Ohio.

The regular meeting of the Potter County Medical Society was held on April 7 in Amarillo. Dinner was served before the meeting and program took place.

Emil P. Reed, vice-president, presided at the meeting in the absence of the president, G. R. Chase. Walter E. Watkins, program chairman, introduced the speaker. After his talk, Dr. Beck showed a motion picture film on revascularization of the heart.

J. Victor Ellis was accepted as a new member. A committee was appointed to investigate a request for aid in examining applicants for the Elizabeth Jane Bivins Home for the Aged. The society voted to appoint the city health officer to serve with the Amarillo Safety Council, which requested representation to execute the "Operation Safety" program. Ben T. Blackwell reported on the committee on military affairs.

Approximately fifty physicians including guests from Borger, Pampa, and the Amarillo Air Force Base were present.

Tarrant County Society

March 11, 1952

(Reported by W. P. Higgins, Jr., Secretary)

Members of the Tarrant County Medical Society met March 11 to participate in the postgraduate telephone broadcast on "Recognition and Treatment of Abdominal Emergencies" sponsored by the Texas Medical Association. More than 160 members and guests attended.

Clinical-Pathologic Conference—C. D. Fitzwilliam, moderator.

Case 1.—Ted Myers, C. D. Fitzwilliam, Roy E. Snyder, R. J. White, Edgar W. Spackman, and Charles H. Brown.

Case 2.—E. R. Kyger, Edgar W. Spackman, Charles T. Ashworth, E. M. Cyrus, Jr., and Thomas B. Bussey.

The above outlined program was presented at the April 1 meeting of the Tarrant County Medical Society in Fort Worth.

Miss Frances Smith, under the auspices of the Fort Worth Eye, Ear, Nose, and Throat Society, spoke to the society on the program in Fort Worth for the visually handicapped children. Hal Maxwell introduced Miss Smith.

Warren G. Knox and James W. Brooks were elected to membership. Robert D. Bickel, chairman of the cancer committee, spoke on behalf of the Southwest Regional Cancer Conference.

Attention was called to several meetings of interest to physicians, and J. F. McVeigh was elected delegate to the Texas Medical Association's House of Delegates.

Webb-Zapata-Jim Hogg Counties Society

April 1, 1952

(Reported by H. L. Warres, Secretary)

Simplified Dermatologic Therapy—Louis Pipkin, San Antonio.

The above named program was presented at the meeting of the Webb-Zapata-Jim Hogg Counties Medical Society held in Laredo on April 1.

Wharton-Jackson-Matagorda-Fort Bend Counties Society

April 8, 1952

(Reported by Lorraine I. Stengl, Secretary)

Use of the Male Hormone in Gynecology—Felix N. Rutledge, Houston.

Management of the Prolonged Labor—Robert A. Johnston, Houston.

Discussion—Lorraine I. Stengl, El Campo, and Dennis Voulgaris, Wharton.

The Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society met April 8 in Edna with thirty-three society members, guests, and auxiliary members present. The above outlined scientific program was presented.

Awards were made to winners of the essay contest, "Why the Private Practice of Medicine Furnishes This Country with the Finest Medical Care." Winners were Milton Williamson, Bay City, first place; Johnnie McDaniel, Palacios, second place; and Joyce Hughes and Virginia Conerly, both of Bay City, who tied for third place.

AUXILIARY SECTION

Chicago Meeting June 9-13

The Woman's Auxiliary to the American Medical Association will meet concurrently when the Association holds its one hundred and first annual meeting in Chicago, June 9 through 13.

In addition to the Texas women who will attend the meetings in Chicago, several Texans will participate actively in the planned program. Mrs. George Turner, El Paso, treasurer of the Woman's Auxiliary to the American Medical Association, will present a report; Mrs. Frank N. Haggard, San Antonio, past president of the Woman's Auxiliary to the American Medical Association, will preside at a luncheon meeting; and Mrs. William M. Gambrell, Austin, will serve on the resolutions committee.

A report of Auxiliary activities during the past year under the administration of Mrs. O. W. Robinson, Paris, will be presented by the incoming state president, Mrs. Robert F. Thompson, El Paso. Headquarters for the Auxiliary will be the Conrad Hilton Hotel where all meetings and most of the social events will be staged. Registration and committee meetings will begin on June 8.

FIRST ISSUE OF NEWSLETTER

The first issue of a newsletter published by the Woman's Auxiliary to the Texas Medical Association was distributed to the members throughout the state on April 20.

Edited by Mrs. Cuvier P. Lipscomb, Fort Worth, the newsletter contains the program of the annual session of the Auxiliary in Dallas, May 4-7, and other news items. The purpose of the newsletter as pointed out in the President's Message by Mrs. O. W. Robinson, Paris, is to promote public relations, convey important announcements, and keep the members of the state organization informed of "impending legislation as pertains to Health and other phases of the Medical Profession." The advisability of making the newsletter a permanent publication will be discussed at the annual meeting.

AUXILIARY NEWS

Bell County Auxiliary

The Woman's Auxiliary to the Bell County Medical Society honored senior high school girls of the county at a tea April 11 in Temple.

Miss Laura Cole, director of nurses, Scott and White Memorial Hospital, and Mrs. Ruby B. Gilbert, administrator, King's Daughters Hospital, discussed nursing as a career for women.

Mrs. Raleigh R. Curtis was leader for the nurse recruitment program. Hostesses included Mesdames C. H. Cox, Jr., Fred Hammond, J. E. Ibarra, V. M. Longmire, C. D. McMillan, J. E. Robinson, H. W. Sewell, S. W. Shibler, and C. A. Stevenson.—Mrs. V. J. Simmon, Reporter.

Officers of the Woman's Auxiliary to the Texas Medical Association: President, Mrs. Robert F. Thompson, El Paso; President-Elect, Mrs. E. W. Coyle, San Antonio; First Vice-President (Organization), Mrs. R. T. Travis, Jacksonville; Second Vice-President (Physical Examinations), Mrs. Troy A. Shafer, Harlingen; Third Vice-President (Today's Health), Mrs. P. R. Jeter, Childress; Fourth Vice-President (Program), Mrs. John D. Gleckler, Denison; Recording Secretary, Mrs. Carlos R. Hamilton, Houston; Treasurer, Mrs. Oscar Marchman, Jr., Dallas; Corresponding Secretary, Mrs. Newton F. Walker, El Paso; Publicity Secretary, Mrs. A. H. Neighbors, Sr., Austin; Parliamentarian, Mrs. Joe D. Nichols, Atlanta.

Cameron-Willacy Counties Auxiliary

Officers of the Cameron-Willacy Counties Auxiliary were elected at the March meeting held in Harlingen.

Mrs. John A. Welty, Harlingen, was elected president; Mrs. John C. Kuppinger, Harlingen, vice-president; Mrs. Willis H. Jondahl, Harlingen, first vice-president; Mrs. George E. Bennack, Raymondville, second vice-president; Mrs. E. H. Boice, San Benito, third vice-president; Mrs. I. Krishna, Brownsville, fourth vice-president; and Mrs. E. J. Ashcraft, Jr., Harlingen, recording secretary. Mrs. John F. Brown, San Benito, corresponding secretary; Mrs. James Clark, San Benito, treasurer; Mrs. Robert N. Smith, Jr., Harlingen, publicity chairman; and Mrs. Cornelius Olcott, Jr., Harlingen, parliamentarian.

Cherokee County Auxiliary

The Woman's Auxiliary to the Cherokee County Medical Society entertained with a Doctor's Day banquet February 26 in Jacksonville honoring the physicians throughout the county.

The Rev. Don Pevey, pastor of the First Methodist Church, was guest speaker and pointed out in his talk the spiritual aspect of medicine in relation to the physical body.

Mrs. C. H. Stripling was program chairman and the speaker was introduced by Mayor T. E. Acker. Musical entertainment was provided by a trio from Tyler. Vocal numbers were presented by Mrs. J. R. Weatherby, Chris Miller, and the Morris Men of Lon Morris College. Mrs. W. E. Gaggert, Rusk, presided at the meeting.

DeWitt-Lavaca Counties Auxiliary

The DeWitt-Lavaca Counties Auxiliary met February 7 in the home of Mrs. L. B. S. Richter, Yoakum, president, and the nominating committee presented a slate of officers for the vote of the members.

After the business meeting the members heard Dr. T. E. Dodd speak on civil defense.

Galveston County Auxiliary

Officers of the Woman's Auxiliary to the Galveston County Medical Society were elected on March 18 in the home of Mrs. Clarence Livingood. They will take office in May.

Mrs. Arild E. Hansen is president and other officers are Mesdames M. A. Caravageli, president-elect; Mrs. William C. Levin, vice-president; Mrs. Andrew Maglioli, recording secretary; Mrs. Peter B. Kamin, corresponding secretary; and Mrs. Dan R. Smith, treasurer.

Miss Roberta St. James, director of the Moody School for Cerebral Palsied Children, spoke at the meeting, after which members of the auxiliary visited the school.

Gregg County Auxiliary

Mrs. Garland Rushing, Longview, was installed as president of the Woman's Auxiliary to the Gregg County Medical Society at a special guest day luncheon in Gladewater March 6.

Other officers installed at this time were Mrs. J. C. McKean, Gladewater, vice-president; Mrs. John R. Loftis, Longview, secretary; and Mrs. Wayman B. Norman, Longview, treasurer.

Mrs. Harold Victory presented a review of the book, "The Foundling," by Francis Cardinal Spellman and Mrs. D. R. Hudspeth sang, "When Irish Eyes Are Smiling" accompanied by Mrs. H. L. McKaig.

Mrs. Frank Mondrik, Longview, retiring president, conducted the business session and Mrs. R. H. Robertson, Kilgore, was the installing officer.

Harris County Auxiliary

Officers of the Harris County Auxiliary for 1952-1953 who were elected at a meeting March 31 in Houston are Mesdames Jacob F. Schultz, president-elect; Jack G. Brannon, first vice-president; Edward T. Smith, second vice-president; R. C. L. Robertson, recording secretary; Otis Flynt, corresponding secretary; Thomas P. Shearer, treasurer; W. M. Wallis, publicity secretary; Daniel E. Jenkins, historian; and W. P. Bonin, parliamentarian. Mrs. J. Peyton Barnes is president.

Mrs. Jack G. Brannon, chairman of the program, introduced the Honorable Martin Dies, Lufkin, guest speaker.

The Woman's Auxiliary to the Harris County Medical Society held a luncheon meeting in Houston on April 28.

In a style show during the luncheon members modeled clothes they had made. Delegates to the state meeting in Dallas, Mesdames Henry R. Maresh, J. Peyton Barnes, Byron York, and Jacob F. Schultz, were introduced.

Mrs. Lynn A. Bernard was chairman of the program and Mrs. C. Forrest Jorns, co-chairman.—Mrs. Norborne B. Powell, Publicity Secretary.

Henderson County Auxiliary

The Woman's Auxiliary to the Henderson County Medical Society honored the physicians of the county at a banquet in Athens on February 7.

Mrs. N. D. Geddie, Athens, president, presided at the program and Dr. Don Price, Athens, gave the invocation. The High School Choral Club under the direction of Odis Kindle entertained. Mrs. A. H. Easterling, Tyler, gave a reading, "Yours Are the Hands." A social hour was held after the meeting.

Hopkins-Franklin Counties Auxiliary

The Woman's Auxiliary to the Hopkins-Franklin Counties Medical Society met February 13 in the home of Mrs. Joseph Longino, Sulphur Springs.

The auxiliary made a donation to the Library Fund of the Texas Medical Association. The nominating committee submitted a slate of officers who were elected. They are Mesdames Joseph Longino, president; T. P. Lynch, vice-president; Omer F. Kirkpatrick, secretary; T. H. McConnell, treasurer; and S. Byrd Longino, reporter.

Hunt-Rockwall-Rains Counties Auxiliary

Mrs. Frank Dent, Dallas, reviewed "The Patriots" by Sidney Kingsley at a meeting February 5 of the Hunt-Rockwall-Rains Counties Auxiliary in the home of Mrs. T. C. Strickland, Greenville. Co-hostesses were Mesdames Truett Crim, W. P. Philips, F. S. Carruthers, W. B. Reeves, and Marvin Connor.

Dr. Ralph Jenks was guest speaker at the regular meeting of the Auxiliary held in March in the home of Mrs. Joe Becton, Greenville. Committees for the year were announced by Mrs. William Mitchell. Mrs. H. E. Mehmert gave the devotional. Co-hostesses for the meeting were Mesdames Fred Peak, Frank Parker, Jr., Lowell Leberman, and George Trad.

Kerr-Kendall-Gillespie-Bandera Counties Auxiliary

Dr. Alfred H. Hill, San Antonio, spoke on preventive psychiatry at a meeting of the Woman's Auxiliary to the Kerr-Kendall-Gillespie-Bandera Counties Auxiliary on March 21 in Kerrville. The lecture was open to the public.

After the program a reception was held in the home of Dr. and Mrs. David McCullough. Dr. Hill, faculty members of the Kerrville schools, and members of the medical society and auxiliary were present.

Hostesses were Mesdames Roger Stevenson, W. L. Secor, Mara Green, V. J. Sutch, F. E. Jolly, and A. J. Black, Kerrville.

The Woman's Auxiliary to the Kerr-Kendall-Gillespie-Bandera Counties Medical Society met April 4 in the home of Mrs. J. Hardin Perry, Fredericksburg.

The first and second place winners in the essay contest of the Association of American Physicians and Surgeons sponsored locally by the auxiliary were introduced at the meeting. They were Miss Marilyn Davidson, Kerrville, first, and Miss Margaret Talley, Fredericksburg, second. The students and their mothers were guests at the meeting.

Mrs. Roger Stevenson, chairman of the nominating committee, submitted the following list of nominees who were elected by acclamation: Mrs. Hugh A. Drane, Kerrville, president; Mrs. Judd Kirkham, Legion, first vice-president; Mrs. W. E. Gregg, Kerrville, second vice-president; Mrs. C. C. Jones, Jr., Kerrville, third vice-president; Mrs. L. W. Feller, Fredericksburg, secretary; Mrs. C. B. Matthews, Kerrville, treasurer; Mrs. H. P. Reid, Kerrville, parliamentarian; and Mrs. Roger Stevenson, Kerrville, historian.

Mrs. R. H. Weiss of the Kerrville Public Schools spoke on vocational guidance in the schools. A social hour was held after the meeting for the members and their five guests. Mrs. Victor Keidel, Fredericksburg, assisted the hostess.—Mrs. Russell E. Guill, Secretary.

Kleberg-Kenedy Counties Auxiliary

The Woman's Auxiliary to the Kleberg-Kenedy Counties Medical Society was organized at a special meeting held in March at the home of Mrs. L. M. Barnett, Bishop.

Officers named were Mesdames Clarke Ginther, Bishop, president; S. C. Dunn, Kingsville, vice-president; E. W. Greif, Kingsville, secretary; and L. M. Barnett, Bishop, treasurer.

Nacogdoches County Auxiliary

The Nacogdoches County Auxiliary observed Doctors' Day February 26. Boutonnieres were presented to the physicians to wear on that day and Mrs. Walter B. Allen, president, was in charge of placing flowers at the graves of deceased physicians.

Mrs. Oscar W. Robinson, Paris, President of the Woman's Auxiliary to the Texas Medical Association, was honored at a meeting and luncheon given by the Nacogdoches County Auxiliary in Nacogdoches on March 5.—Mrs. Walter B. Allen, President.

Travis County Auxiliary

The Woman's Auxiliary to the Travis County Medical Society met April 15 at the home of Mrs. Ben Eppright, Austin.

Hostesses for the meeting were Mesdames R. G. Carter, Horace Cromer, Kermit Fox, Fred Lowry, R. A. Lucas, Scott McGuire, C. H. Miears, P. J. Paris, B. M. Primer, Sr., B. H. Reinarz, N. L. Schiller, Z. T. Scott, Albert Terry, Albert Tisdale, Harold M. Williams, Edward Zidd, and G. F. Thornhill. Chairmen of the hostess committee were Mesdames C. H. McCuistion and G. W. Cleveland.

First District Auxiliary

Mrs. Harold Lindley, Pecos, was elected president of the Woman's Auxiliary to the First District Medical Society at the organizational meeting held February 15 in El Paso. Other officers named were Mrs. C. E. Oswalt, Fort Stockton, vice president; and Mrs. David Sauer, Kermit, secretary-treasurer.

Mrs. R. B. Homan, Jr., president of the El Paso County Auxiliary, presided. Dr. Allen T. Stewart, Lubbock, President of the Texas Medical Association, and Mrs. Lindley, council woman of the First District, spoke. Honor guests were Mrs. Stewart of Lubbock and Mrs. Robert F. Thompson, El Paso, President-Elect of the Woman's Auxiliary to the Texas Medical Association.

A luncheon for physicians and their wives was held. Chairmen of arrangements were Mesdames Joe Carter and Frank Barrett.

Third District Auxiliary

The Third District Auxiliary met on April 1 in Plainview at the Country Club. Mrs. H. M. Burke, Tulia, president of the Hale-Floyd-Briscoe-Swisher Counties Auxiliary, gave a welcome address. Mrs. R. B. Payne, Amarillo, council woman of the Third District, presided at the meeting.

Mrs. Payne called for reports from the counties making up the district. The reports were given by the following persons: Mrs. H. M. Burke, Tulia, Hale-Floyd-Briscoe-Swisher Counties Auxiliary; Mrs. Emerson M. Blake, Lubbock, Lubbock-Crosby Counties Auxiliary; Mrs. R. F. Wertz, Amarillo, Potter County Auxiliary; Mrs. J. A. Odom, Memphis, Armstrong-Donley-Childress-Collingsworth-Hall Counties Auxiliary; and Mrs. Joseph George, Gray - Wheeler - Hansford--Hemphill - Lipscomb - Roberts - Ochiltree - Hutchinson - Carson Counties Auxiliary.

Mrs. R. B. Payne was reelected council woman; and Mrs. W. J. Campbell, Amarillo, was elected secretary.

Mrs. Oscar W. Robinson, Paris, President of the Woman's Auxiliary to the Texas Medical Association, was introduced and received a gift from the Third District Auxiliary. Mrs. Robinson spoke on the program of the State Auxiliary.—Mrs. Emerson M. Blake, Secretary.

DEATHS

R. G. MURRIE

Dr. Robert Gregg Murrie, Albany, Texas, died in an Abilene hospital March 14, 1952, from heart collapse after surgery for removal of a malignant tumor of the bladder.

Born April 17, 1884, at Mineola, to James Edwin and Margaret (Gregg) Murrie, Dr. Murrie attended Seymour High School; Reynolds Academy, Albany; and Baylor University, Waco. He was graduated in 1905 from the University of Texas School of Medicine, Galveston, and completed postgraduate work in 1911 at Johns Hopkins University, Baltimore. From June, 1905, to December, 1906, Dr. Murrie practiced in Seymour; since then he had been active in medicine in Albany. At his death it was believed that he had the longest continuous record of service as county health officer in Texas; he had served as health officer of Baylor County from 1905 until 1906 and of Shackelford County since 1924.

A fellow of the American Medical Association, Dr. Murrie had been a member for many years of the Texas Medical Association through Stephens - Shackelford - Throckmorton Counties Medical Society. At his death he was chief of staff of Shackelford County Hospital. He was a member of the Baptist Church.

In Albany on October 31, 1911, Dr. Murrie wed Miss Merdie Leech; she died December 17, 1944. He married Miss Pauline Shirley in Wichita Falls, on July 3, 1948; she survives him as do a daughter, Mrs. W. M. Holland, Conroe; a sister, Mrs. Rebecca Murrie Wood, Fort Worth; and two grandchildren.

F. E. ORMSBY

Dr. Floyd Edwin Ormsby, Dallas, Texas, died in a local hospital February 24, 1952, from encephalitis after six weeks' illness.

Born November 28, 1885, at Pickton, Dr. Ormsby was the son of Marcus B. and Christia (Floyd) Ormsby. He attended Pickton High School. Before entering old Southwestern University Medical College, Dallas, from which he received a medical degree in 1911, his vocations included cowpunching, mining, stock raising, and farming. His interest in horses lasted throughout his life, and before World War II he was a frequent spectator at the Kentucky Derby.

After an internship in St. Paul's Hospital, Dallas, Dr. Ormsby was physician for the Texas Portland Cement Company at Cement. While there he helped organize the Cement City Independent School and was president of its board. Moving to Dallas in 1911, he opened a drug store in West Dallas and established a medical practice that lasted until his death. He gave his services practically free to those in military service during World War II and would remove pieces of shrapnel free.

DR. F. E. ORMSBY

Dr. Ormsby was a member of the Texas Medical and American Medical Associations through Dallas County Medical Society. He was affiliated with Theta Kappa Psi Medical fraternity and was a member of the Baptist Church.

Survivors include Dr. Ormsby's wife, the former Miss

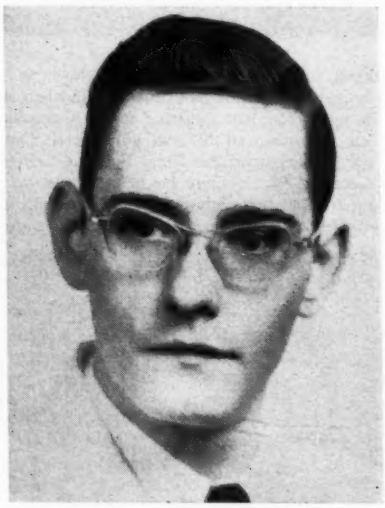
An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

Isabel C. Frost, whom he married May 7, 1912, in Dallas; his daughter, Mrs. Seth Lowrey, Lancaster; his son, Floyd Edwin Ormsby, Jr., Cleburne; his stepmother, Mrs. Pearl Ormsby, Hollywood, Calif.; two brothers, R. F. Ormsby, Tulia, and Marcus Ormsby, Irving; and three grandchildren, Janice and Jack Lowrey, Lancaster, and Floyd Edwin Ormsby, III, Cleburne.

C. H. KING, JR.

Dr. Calvin Harman King, Jr., San Marcos, Texas, died of acute lymphatic leukemia, February 22, 1952, in the San Antonio Hospital where he had interned.

The son of Mr. and Mrs. Calvin H. King, he was born February 26, 1927, in Tulsa. His early academic education was acquired in St. Teresa's Academy, Central Catholic High School, and St. Mary's University, San Antonio; he was awarded a bachelor of science degree from the last-named institution. In June, 1949, the St. Louis University School of Medicine conferred upon him the degree doctor of medicine. Dr. King served as administrative resident and personal health physician from 1947 to 1950 and a second year's internship from 1950 to 1951 in Santa Rosa Hospital, San



DR. CALVIN H. KING, JR.

Antonio. From July, 1951, until his death he was engaged in private practice in San Marcos.

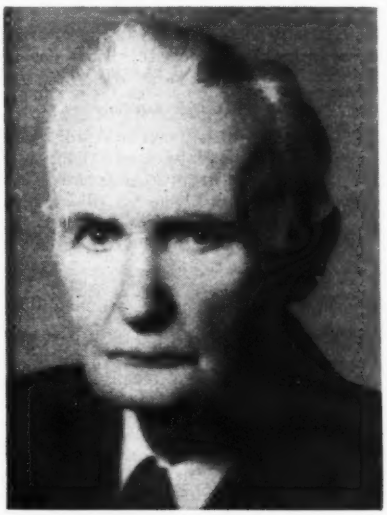
Dr. King was a member of the Texas Medical Association through Hays-Blanco Counties Medical Society. He was a member of Alpha Kappa Kappa medical fraternity and a member of the Baptist Church.

On September 5, 1948, in Salem, Mo., Dr. King married Miss Patricia Craddock. His wife survives; also their son, Brian Leonard, and his parents, Mr. and Mrs. Calvin H. King, San Antonio.

C. NICHOLS, SR.

Dr. Clay Nichols, Sr., Luling, Texas, died at his home February 29, 1952, of coronary thrombosis.

The son of William Alexander and Helen (Woolsey) Nichols, Dr. Nichols was born February 12, 1868, in Schulenburg. He attended Huntsville Normal and was graduated with a degree in medicine from Tulane University, New Orleans, in 1890. After serving internships at Touro Infirmary and Charity Hospital in New Orleans, Dr. Nichols returned to Texas to practice in Caldwell County. He was surgeon for the Santa Fe shops in Yoakum and practiced at Sweethome before moving to Luling, where he had resided for the past fifty years. Although he had been partially retired for about fifteen years, he still maintained an interest in the Green Cross Sanitarium, which he owned in partner-



DR. CLAY NICHOLS, SR.

ship with his son, Dr. Clay Nichols, Jr., and in the Green Cross Pharmacy, which he and other members of his family owned.

Dr. Nichols was a member of Caldwell County Medical Society, the Seventh District Medical Society, the Texas Medical Association, and the American Medical Association throughout his professional career. He was a member of the Presbyterian Church and for many years was on the Luling school board.

Miss Susan Hutchins and Dr. Nichols were married June 22, 1897, in Oakland; she died July 28, 1948. Survivors include two sons, Dr. Clay Nichols, Jr., and Ragsdale Nichols, Luling; two daughters, Miss Katherine Nichols, Luling, and Mrs. C. H. Wellborn, Corpus Christi; and two sisters, Mrs. E. B. Carruth, Sr., San Antonio, and Mrs. W. T. Brian, El Dorado, Kan.

N. C. ICE

Dr. Noel Carlyle Ice, McAllen, Texas, the father of a McAllen physician, Dr. Noel V. Ice, died from acute pulmonary edema February 6, 1952, at home.

Born March 31, 1890, in Gifford, Ill., to James K. and Nancy (Butcher) Ice, Dr. Ice attended the Champaign (Illinois) High School; Texas Agricultural and Mechanical College, College Station; and the University of Illinois, Urbana, from which he was graduated in 1915 with a bachelor of arts degree. Postgraduate studies were pursued at the University of Chicago. After earning his medical degree in 1917 from Western Reserve University School of Medicine, Cleveland, he served an internship and surgical residency at Charity Hospital and was a staff member of Mount Sinai Hospital, Cleveland. For twenty-two years he practiced in Willoughby, Ohio, moving in 1940 to McAllen and maintaining an active practice there until shortly before his death. His specialty was industrial medicine and surgery.

Dr. Ice was a member of the Texas and American Medical Associations through Hidalgo-Starr Counties Medical Society. He was on the staff of McAllen Municipal Hospital. During World War I he was with the United States Public Health Service. Dr. Ice, a Master Mason, was a Methodist. For thirty years he was a member of the Kiwanis Club. He belonged to Sigma Pi fraternity and Phi Rho Sigma medical fraternity.

In Beardstown, Ill., on June 1, 1918, Dr. Ice wed Miss Zelma Jockisch; she survives as do their children, Dr. Noel V. Ice and Mrs. Don E. Irwin, McAllen, and Mrs. William A. Weinkamer, Jr., Willoughby, Ohio; his four sisters, Mrs. Marinda Middleton, Austin; Mrs. Delbert Ward, Harlingen; Mrs. Constance Braman, Jacksonville, Fla.; and Mrs. Laura Walker, Butte, Mont.; and four grandchildren.

J. N. SEALE

Dr. James Noble Seale, Jasper, Texas, died February 9, 1952, in the Veterans Administration Hospital, Houston, of subacute bacterial endocarditis.

Born July 28, 1905, in Jasper, Dr. Seale was the son of John H. Seale and Margaret (Noble) Seale. He attended Burleson College, Greenville, and the University of Texas, Austin, and received his medical education at Baylor University College of Medicine, Dallas, from which he received his doctor of medicine degree in 1936. He served internships at Bradford Memorial Hospital and St. Paul's Hospital, Dallas, and an externship at Medical Arts Hospital, Dallas. Upon the completion of this training, he practiced in Jasper

DR. JAMES N. SEALE

except for a period spent in the Army between 1942 and 1946. Entering duty as a captain, Dr. Seale served about a year in the United States and the remainder of the time in the European Theater. He was a member of the surgical team of the Third Auxiliary Surgical Group with the First Army in France and Germany, treating nontransportable wounded. He received the purple heart and Eame campaign medal with five bronze stars and held the rank of major when discharged.

A member of the Texas and American Medical Associations through Jasper-Newton Counties Medical Society, Dr. Seale was president of the county society in 1946-1947. He had been health officer for both the city and county and was chairman of rehabilitation for the Second District, cooperating with the Veterans Administration to aid hundreds of returned veterans and their families. He was a charter member of the Jasper Lions Club, its first vice-president and its second president. He was a member of the Baptist Church and Delta Chi fraternity. He was a charter member of the Texas Rheumatism Association and a member of the Post Graduate Medical Assembly of South Texas and Association of American Physicians and Surgeons.

Dr. Seale is survived by his wife, the former Miss Sally Agnieze Few, whom he married June 30, 1932, in DeRidder, La.; a daughter, Miss Sally Lynn Seale; his mother, Mrs. John H. Seale; a sister, Mrs. Frank Holmes, all of Jasper; and two brothers, P. B. Seale, Jasper, and Robert A. Seale, Shreveport, La.

G. V. MORTON

Dr. Goodridge Venable Morton, pioneer Fort Worth obstetrician, died in a local hospital February 28, 1952, from an esophageal diverticulum. Although he had been in ill health for several years, he had been confined to his bed for only the two weeks before his death.

Dr. Morton, the youngest of eight children of William and Margaret Elizabeth (Watkins) Morton, was born June 1, 1873, on Campostella Plantation, Charlotte County, Va. He acquired his academic education at Hampden-Sydney College, Hampden-Sydney, Va., and Virginia Military Institute, Lexington, from which he received the degree bachelor of science in 1894. In the fall of that year he went to Fort Worth to assume the position of commandant of cadets and to teach chemistry at old Fort Worth University. He also

DR. G. V. MORTON

studied medicine at Fort Worth School of Medicine and was valedictorian of his graduating class in 1897. Dr. Morton served an internship at a Chicago hospital, then took postgraduate work in obstetrics and pediatrics at Johns Hopkins University, Baltimore.

After beginning practice in 1898 in Fort Worth, Dr. Morton sought to establish the specialty of obstetrics in that city and to develop technologic improvements in the field. He is credited as well for bringing the first pediatrician and the first registered nurse to Fort Worth. He occupied the chair of obstetrics at Fort Worth Medical College, where he taught

for many years, as well as engaging in private practice. In his early practice he owned a Franklin automobile because "he did not need to bother putting water in the radiator"; before the advent of antifreeze this was an important consideration, since a doctor's car had to start in all kinds of weather. Early in his career he was one of the first doctors to move his office from the downtown business district to a suburban area.

In 1918 Dr. Morton served as a member of the Volunteer Medical Corps.

Elected to honorary membership in the Texas Medical Association in 1948, Dr. Morton was affiliated with Tarrant County Medical Society, Thirteenth District Medical Society, and the American and Southern Medical Associations. At his death he was an emeritus member of the Texas Association of Obstetricians and Gynecologists, of which he was a charter member. He was a staff member of the major Fort Worth hospitals until his retirement from active practice in 1936.

Dr. Morton was a member of Phi Chi medical fraternity, Delta Tau Delta fraternity, Rotary Club, River Crest Country Club, Fort Worth Club, and Texas Christian University "Frog Club." For more than fifty years he was an elder of the First Presbyterian Church. A thirty-second degree Mason, he belonged to the Shrine.

On December 15, 1898, in Fort Worth, Dr. Morton married Miss Mary Feild, the daughter of the late Dr. Julian Feild, pioneer Fort Worth physician. His wife survives; also a son, T. F. Morton, Houston, and three daughters, Mrs. Joseph J. Minton, Fort Worth; Mrs. Walter Proctor, Victoria; and Mrs. Larry Cotton, North Hollywood, Calif.: and five grandchildren.

J. W. LONG

Dr. James Walter Long, resident for more than twenty years of Port Arthur, Texas, and formerly its mayor, died suddenly of a heart attack February 17, 1952, in Pittsburgh, Pa., where he had just gone to become medical director for the Gulf Oil Corporation. He was a member of the Texas State Board of Health at the time of his death.

Dr. Long was born in Belton, S. C., February 9, 1900, the son of Dr. William Monroe and Fannie Leonora (Horton) Long. He was graduated from the Liberty high school; attended Furman University, Greenville, S. C., receiving his bachelor of arts degree there with honors in 1919; took premedical courses at Emory University, Atlanta, Ga., during the year 1921-1922 after teaching a year at Greenville; began his medical education at Jefferson Medical College, Philadelphia; and was graduated in medicine at Tulane University School of Medicine, New Orleans, in 1926. He served an externship at Baptist Hospital and an internship at Charity Hospital, both in New Orleans, and then opened his practice in Port Arthur in 1928. During 1929 and 1930, Dr. Long was located in Gadsden, Ala., and then in Del Rio, practicing pathology as well as doing general medical work in the latter place. From July, 1930, until December, 1951, he was in industrial practice in Port Arthur, being associated with the Gulf Oil Corporation Refinery there. In January he left for Pittsburgh to direct all of the medical activities for Gulf.

Maintaining his affiliation with the American and Texas Medical Associations through Jefferson County Medical Society, Dr. Long served the latter group as secretary in 1938 and as president in 1940. He was a member of the Southern Medical Association and Texas Railway and Traumatic Surgical Association and a fellow of the Industrial Medical Association, American Academy of General Practice, American Academy of Compensation Medicine, American Academy of Occupational Medicine, and Southwestern Surgical Congress (founding fellow). He was chairman of the health committee of the Petroleum Section of the National Safety Council from 1938 until 1941, and vice-chairman of the medical advisory committee of the American Petroleum Institute for 1952. He was a member of the St. Mary's Hospital surgical staff and past president of the staff and a member of the staff at Baptist Hospital, Beaumont. He had been commander of the American Legion posts at Del Rio and Port Arthur and surgeon of the Veterans of Foreign Wars post at Port Arthur. He was a member of the medical advisory committee of the American Legion for the Department of Texas from 1948 until the time of his death. He had been a member of the Lions Club at Del Rio and Port Arthur and was district governor for Lions International in 1941. Dr. Long was a member of the Masonic Order and Shrine, Fraternal Order of Eagles, and Benevolent and Protective Order of Elks. Serving on the Port Arthur City Commission for two terms, Dr. Long was mayor pro tempore in 1947 and mayor from 1948 to 1950. He was

DR. JAMES W. LONG

director of the Young Men's Christian Association for twelve years, the Salvation Army for three years, the Red Cross for one year, and the Chamber of Commerce for three years. He was past chairman of the Port Arthur Central Beautification Committee. Dr. Long was a member of the First Baptist Church of Port Arthur.

During World War I, Dr. Long served six months as a private in the infantry. He was in the medical Reserve Officers Training Corps at Jefferson Medical College from 1922 to 1924 with six weeks active duty at Carlisle Barracks, and during World War II he saw active service with the Medical Corps in the Pacific Theater, being island surgeon on Iwo Jima in 1945. He received the World War I victory ribbon, American Defense ribbon, American Theater ribbon, bronze star, campaign star and Asiatic Pacific ribbon, and World War II victory ribbon. Leaving active service as a lieutenant colonel, Dr. Long continued in that rank in the Organized Reserve Corps.

Dr. Long had written several papers dealing with industrial medicine.

Surviving Dr. Long are his wife, the former Miss Ruth McDow, and young son, William Monroe Long; two sisters, Miss Grace Long, Washington, D. C., and Mrs. Charles E. Richards, New Orleans; and one brother, William M. Long, Liberty, S. C.